User Guide
for the
KODAK X-OMAT Multiloader 7000

H186_1000AC

Table of Contents

User Guide Conventions

Special Messages

This guides uses the following special messages to emphasize information or point out potential risks to personnel or equipment.

 Note

Notes provide additional information, such as expanded explanations, hints, or reminders.

 Important

Important notes highlight critical policy information that affects how you use this manual and this product.

 Caution

Cautions point out procedures that you must follow precisely to avoid damage to the system or any of its components, loss of data, or corruption of files in software applications.

 Warning

Warnings identify procedures that you must following precisely to avoid injury to yourself or others.

Typeface Conventions

Bold face type is used to represent buttons that you press.

1 Introduction

Overview
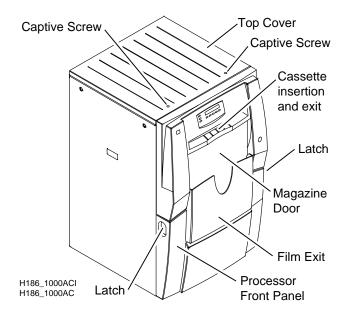
The KODAK X-OMAT Multiloader 7000 (Multiloader) is a compact microprocessor-controlled room light film handling and film processing system. The Multiloader holds up to 7 film supply magazines and is compatible with all sizes of KODAK X-OMATIC and KODAK X-OMAT Cassettes, KODAK MIN-R 2 Cassettes and the KODAK X-OMATIC Video Film Holder.

When the cassette is inserted into your Multiloader, the exposed film is removed, the cassette is reloaded with unexposed film and returned to the operator in less than 20 seconds.

Exposed film is fed into the KODAK X-OMAT 3000 RA Integrated Processor (Processor), in the Multiloader, which is capable of operating at 3 different user selectable cycles for either K/RA, Rapid, or Standard cycle processing of film.

In the K/RA cycle, the Multiloader is compatible with KODAK RA films and KODAK RA/30 chemistry.

Cassette insertion and exit, access to the Film Supply Magazines and film exit are performed at the Operator Interface located at the front of the Multiloader. The Magazine Door, Top Cover and the Processor Front Panel on the front of the Multiloader allow you to access the Multiloader and the Processor.

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H186_1000AC

Specifications

⚠ **Caution**

Special RA films and chemicals must be used for the K/RA cycle.

Cassette Sizes		
KODAK X-OMATIC	18 x 24 cm	18 x 43 cm
KODAK X-OMAT	24 x 24 cm	20 x 40 cm
	24 x 30 cm	15 x 30 cm
	30 x 35 cm	8 x 10 in.
	30 x 40 cm	10 x 12 in.
	35 x 35 cm	11 x 14 in.
	35 x 43 cm	
KODAK MIN-R 2	18 x 24 cm	
	24 x 30 cm	
KODAK X-OMATIC Video Film Holder	8 x 10 in.	

Magazine Capacity:	110 Films
Number of Magazines:	7
Cassette Return Time:	15 - 20 seconds
Finished Film Access Time:	
K/RA	80 seconds
Rapid	103 seconds
Standard	137 seconds
Recommended Temperature:	
K/RA	35.5°C (96°F)
Rapid	37.2°C (99°F)
Standard	34.4°C (94°F)
Capacity:	80 to 200 Cassettes/hour
Dimensions:	
Width	820 mm (32.3 in.)
Height	1380 mm (54.3 in.)
Depth	865 mm (34.1 in.)
Weight	490 Kg (1080 lb.) with solutions and full Magazines
Recommended Operating Conditions:	
Temperature	15 - 35°C (59 - 95°F)
Humidity	30 - 60% RH
Power Supply:	At installation, the voltage setting sticker will be placed on the Data Plate and in the space on the name plate provided on page 1-3.
Maximum Power Consumption:	6 kW
Heat Dissipation:	
Standby	1800 KJ/HR (1706 BTU)
Maximum	4220 KJ/HR (4000 BTU)
Noise Level:	69 dBA sound power level
Water Supply:	3,8 I/min 173-692 kPa (25-100 psi) 4-29°C (40-85°F)

Air Exhaust:	2,124 I/min (75 ft.^{3}/min) max. full load
Recommended Chemicals:	KODAK RP X-OMAT Developer and Replenisher
	KODAK RP X-OMAT LO Fixer and Replenisher
	KODAK X-OMAT LE+ Developer and Replenisher
	KODAK X-OMAT EX II Developer and Replenisher
	KODAK Medical X-ray Liquid Developer
	KODAK Medical X-ray Liquid Fixer
	KODAK X-OMAT RA/30 Developer and Replenisher
	KODAK X-OMAT RA/30 Fixer and Replenisher
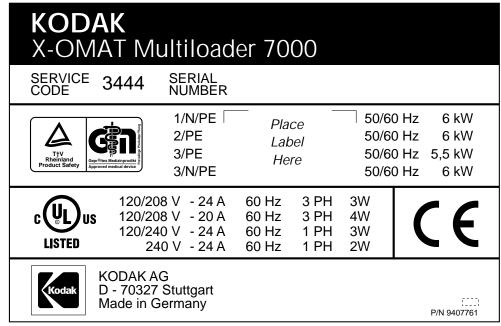
The unit is provided with separate drain valves for fixer and developer.

Europe Only:

KODAK
X-OMAT Multiloader 7000

SERVICE CODE	3444	SERIAL NUMBER	

	1/N/PE		50/60 Hz	6 kW
T†V Rheinland Product Safety — GeprŸftes Medizinprodukt Approved medical device	2/PE	*Place Label Here*	50/60 Hz	6 kW
	3/PE		50/60 Hz	5,5 kW
	3/N/PE		50/60 Hz	6 kW

c UL us LISTED	120/208 V	- 24 A	60 Hz	3 PH	3W	CE
	120/208 V	- 20 A	60 Hz	3 PH	4W	
	120/240 V	- 24 A	60 Hz	1 PH	3W	
	240 V	- 24 A	60 Hz	1 PH	2W	

Kodak — KODAK AG
D - 70327 Stuttgart
Made in Germany

P/N 9407761

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Radio Interference Suppression

 Warning

U. S. A.

This equipment generates, uses and can radiate radio-frequency energy, and if not installed and used in accordance with the User Guide, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user, at the user's own expense, will be required to take whatever steps may be required to correct the interference.

Canada

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference regulations of the Canadian Department of Communications.

Le present appareil numerique n'emet pas de bruits radioelectriques depassent les limites applicables aux appareils numeriques de las class A prescrites dans le Reglement sur le broullage radioelectrique edicte par le minitre des Communications du Canada.

Declaration of Conformity

We declare our sole responsibility that the KODAK X-OMAT Multiloader 7000 to which this declaration relates, is in conformity with the following standards and, therefore, bears a CE mark and follows the provisions of the applicable MDD directive:

EN 60601-1, EN 60601-1-2/1994, EN 60601-1-4/1996

MDD 93/42/EEC and amendments

$$ C\,E $$

Safety Standards

The KODAK X-OMAT Multiloader 7000 is in conformity with international safety requirements and bears the following safety marks:

- cULus (Underwriter Laboratories, UL 122 and Canadian Standards Association, CSA 22.2 No. 950, approved from UL)

- GM (TUV Rhineland, EN 60601-1)

Environmental

The Display Panel contains a trace amount of mercury. Disposal of this product may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities.

Warnings

**Read and understand all instructions before operating the KODAK
X-OMAT Multiloader 7000.**

⚠ **Caution**

United States federal law restricts this device to sale to, by, or on order of a physician.
The information contained herein is based on the experience and knowledge relating
to the subject matter gained by Eastman Kodak Company prior to publication. No
patent license is granted by this information. Eastman Kodak Company reserves the
right to change this information without notice and makes no warranty, express or
implied, with respect to this information. Kodak shall not be liable for any loss or
damage, including consequential or special damages, resulting from the use of this
information, even if loss or damage is caused by Kodak's negligence or other fault

⚠ **Warning**

To avoid hazardous conditions, keep floors and floor coverings around your
Multiloader and associated drains clean and dry at all times. Any accumulation of
fluids from external lines, e.g., drain lines, should be cleaned up immediately. In the
event of an accumulation of liquid due to backup, overflow, or other malfunctions of
the drain associated with the Multiloader, call a plumber or other contractor to correct
the problem. Kodak accepts no responsibility or liability whatsoever for the
serviceability of any drain connected to or associated with the KODAK
X-OMAT Multiloader 7000. Such drains are the sole responsibility of the Customer.

⚠ **Warning**
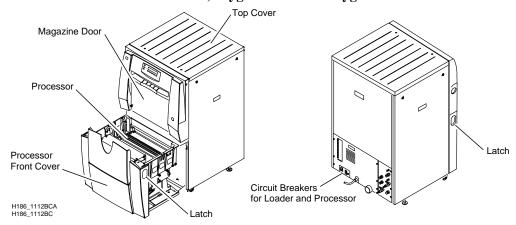
- Drains must be made of chemically-resistant, non-corrosive material. Use PVC or
  equivalent.
- Drain service must comply with local codes.

![Warning symbol] **Warning**

This equipment can be an explosive hazard. Do not use in the presence of flammable anesthetics mixtures, oxygen or nitrous oxygen.

Top Cover

Magazine Door

Processor

Processor
Front Cover

H186_1112BCA
H186_1112BC

Latch

Latch

Circuit Breakers
for Loader and Processor

![Warning symbol] **Warning**
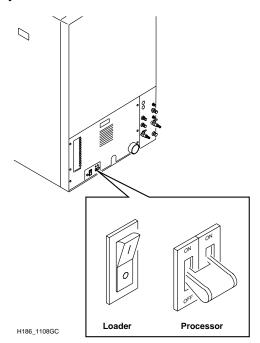
Dangerous voltages which can shock, burn or cause death, are present in this machine. The operator is only allowed to open the Top Cover and the Magazine Door, and to roll out the integrated KODAK X-OMAT 3000 RA Integrated Processor as described in the "Clean-up and Maintenance" section of this User Guide.

Always disconnect the Multiloader main power, either the mains plug (grasp the mains plug only) or move the wall-mounted main switch to the "0" position, before performing the following instructions in this User Guide:

- Clean-Up and Maintenance
- Draining the Processor Tanks
- Mixing the Chemistry

H186_1108GC

Loader   **Processor**

⚠ Warning

- Only Kodak Service Representatives are allowed to install the Multiloader.
- Never cover the venting slots of the Multiloader.
- Do not perform repairs, or exchange internal parts yourself, call a Kodak Service Representative.
- Do not operate the Multiloader with a damaged power cord.
- Do not use an extension cord to power the Multiloader.
- Place the power cord so it will not be tripped over or pulled.
- Connect the Multiloader mains plug to a grounded outlet.*
- After installation from Kodak Service, the mains plug must always be easily accessible.*
- The Heater Plenum is hot. Use caution to avoid burns.
- Before placing the Processor into the Multiloader, move your hands away from the Stop Bracket. Place both hands into the openings of the left and right latches on the Front Cover of the Processor to avoid contact with any moving parts.
  Warning: See **Step 9** on Page **4–11**.
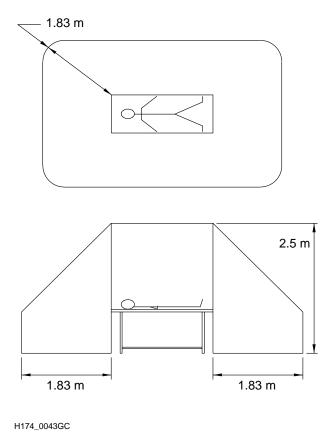
⚠ Warning

The Multiloader is not contained in a sealed cabinet. Therefore it must not be used in locations where it can come in contact with liquids, including bodily fluids.

* Cord connection only.

⚠️ **Warning**

(European Market Only)

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The KODAK X-OMAT Multiloader 7000 is not medical equipment according to EN 60601-1 and must therefore, not enter the patient environment as defined by EN 60601-1-1. The following requirements have to be met:

1. Distance from the device to the Patient Contact Equipment, see the graphic:

   Horizontal = 1.83 meters (6 ft.)

   Vertical = 2.5 meters (8.2 ft.) above the floor under the patient

2. Contact of the patient and the device simultaneously by the caregiver is not allowed.

3. **No** direct electrical connection is allowed between the device and the Patient Contact Equipment.

4. According to European EN safety regulations for medical devices, the KODAK X-OMAT Multiloader 7000 must be properly connected to the Equipotential Equalization Device, if the Multiloader is operated within a distance of 1.83 meters (6 ft.) from a patient. The Device and the connecting cable must be provided by the customer. The purpose of the Device is to ensure that all medical devices are connected to the same ground potential.

⚠ Caution

- According to the European EN Safety Regulations for medical devices, direct contact between the patients and the Multiloader is not allowed.

- If the Kodak Service Representative connected the Multiloader to the Equipotential Busbar using the Equipotential Bonding Plug, this connection may not be interrupted, for example, you are not allowed to pull off the cable coming from the equipotential busbar.

- This equipment generates, uses and can radiate radio-frequency energy, and if not installed and used in accordance with the User Guide, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user, at the user's own expense, will be required to take whatever steps may be required to correct the interference.

Chemical Hazards

⚠ Warning

Gloves and protective eye wear must be worn when working with the processor chemistry, especially when mixing the chemistry.

If the processor chemicals get in the eyes, flush them thoroughly with large amounts of water. If irritation persists, check with a doctor.

Chemistry spills outside the equipment must be cleaned up immediately. This may result in a potential cause of falls and the chemistry can contaminate waste water and irritate the skin, especially the eyes. If a chemical spill occurs, do the following:
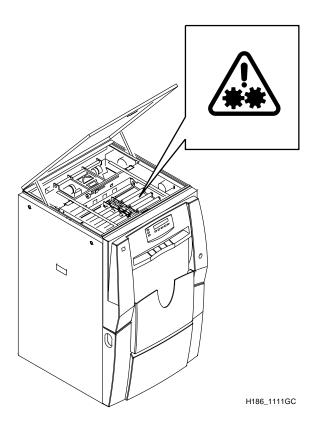
1. Prevent the spilled chemistry from entering a waste water drain.

2. Clean up the spill with a moist mop or rag.

3. Dispose of cleaning materials and waste water collected during the cleanup in an environmentally approved way.

4. Drain chemicals into provided containers and carry out disposal according the local regulations.

⚠ **Warning**
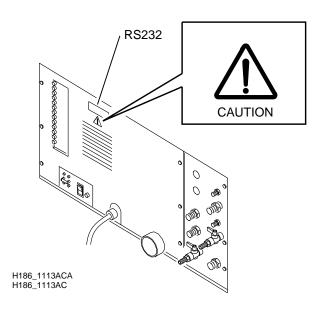
The "Mechanical Hazard" Symbol indicates there is a mechanical hazard if the Safety Interlock System is bridged from the qualified service personnel during maintenance or repairs.

H186_1111GC

⚠ **Warning**
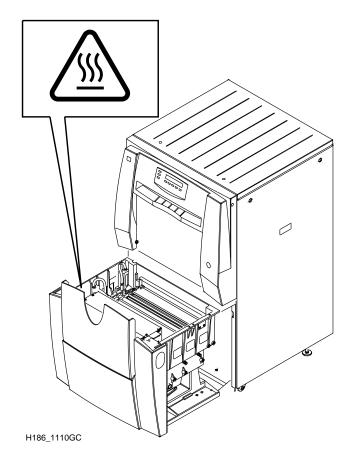
The symbol below the RS232 connector indicates "For the use of qualified service personnel only."

RS232

CAUTION

H186_1113ACA
H186_1113AC

⚠ **Warning**

The "Hot Surface" symbol indicates this area is hot.

H186_1110GC

Warranty

Kodak warrants this KODAK X-OMAT Multiloader 7000 to function correctly for one year from the date of initial installation, when installed within one year from date of shipment.

Warranty Repair Coverage

If this equipment does not function correctly during the warranty period, the Kodak Service Representative provides or arranges for repair of the equipment during normal working hours. Such repair service will include any adjustments and/or replacement of parts required to maintain your equipment in good working order.

The Multiloader requires a constant active exhaust 24 hours a day 7 days a week. Failure to follow this requirement will cause damage to the machine which will not be covered by any warranty.

How to Obtain Service

Should the equipment require service, refer to the sales contract for details on whom to call for service, qualified service personnel, or contact the Kodak Service Representative.

Limitations

Warranty service is limited to the contiguous United States, the island of Oahu in Hawaii, and certain areas of Alaska.

This warranty does not cover:

- circumstances beyond the control of Kodak
- misuse
- abuse
- attachments
- accessories
- alterations not marketed by Kodak (including service or parts to correct problems resulting from the use of such attachments, accessories, or alterations)
- failure to follow the operating instructions recommended by Kodak
- supply items

Important

- Kodak makes no other warranties, express or implied, for this equipment.

- Repair without charge is the only obligation of both Kodak and the dealer under this warranty. Kodak will not be responsible for any consequential or incidental damages resulting from the sale, use, or improper functioning of this equipment, even if loss or damage is caused by the negligence or other fault of Kodak.

- Such damages for which Kodak will not be responsible, include, but are not limited to, loss of revenue or profit, downtime costs, loss of use of the equipment, cost of any substitute equipment, facilities or services or claims of your customers for such damages.

- This limitation of liability will not apply to claims for injury to persons or damage to property caused by the sole negligence or fault of Kodak or by persons under its direction or control.

2 Quick Reference Operating Instructions

Daily Start-Up Procedure

⚠ **Warning**

- Move the 2 Circuit Breakers (Loader and Processor) on the back of the Multiloader 7000 to the "0" position.

- Always disconnect the Multiloader main power (either the mains plug, grasp the mains plug only, or move the wall-mounted main switch to the "0" position) before performing any of the following procedures.

- Only Kodak trained personnel can perform the following procedures.

- Wear rubber gloves, safety glasses, and protective clothing when doing any maintenance procedures. Report any change in the operating condition of the Processor to your Kodak Service Representative.

- Reliable operation of the Processor requires that you clean all parts correctly. More frequent maintenance may be necessary due to site conditions or actual usage. For monthly and quarterly maintenance, contact your trained Kodak Service Representative.
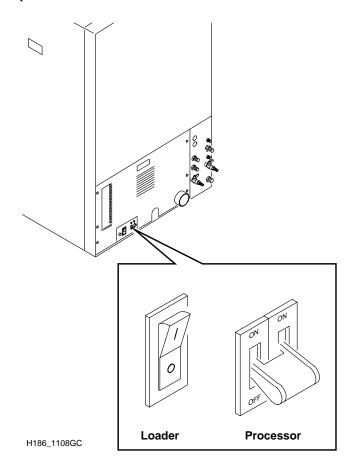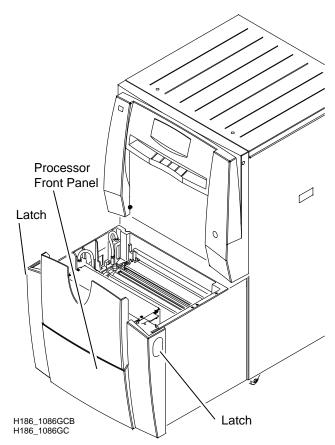
⚠️ **Warning**
Dangerous Voltage
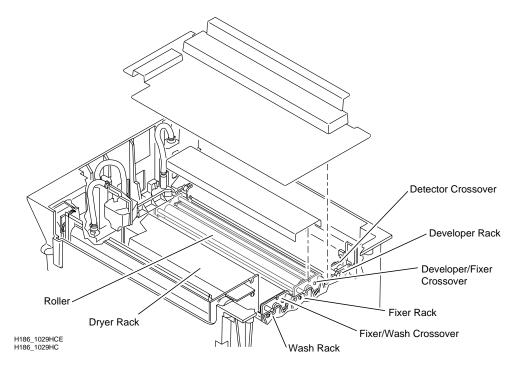
1. Move the Circuit Breakers (Loader and Processor) on the back of the Multiloader to the "0" position.

H186_1108GC

Loader　　　**Processor**

2. Release both Latches on the Processor Front Panel.

Processor
Front Panel

Latch

Latch

H186_1086GCB
H186_1086GC

3. To avoid splashing chemicals, gently pull out the Processor until it locks in place, and remove the Wet Section Cover.

4. Check that the Racks and Crossovers are in their correct positions.

5. Remove the Wash Reservoir.

Detector Crossover

Developer Rack

Developer/Fixer
Crossover

Fixer Rack

Roller

Dryer Rack

Fixer/Wash Crossover

H186_1029HCE
H186_1029HC

Wash Rack
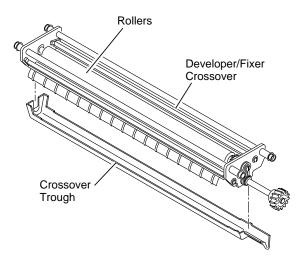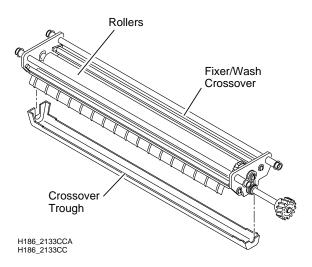
⚠ **Warning**

Always remove the Crossovers from the Multiloader when cleaning and rinsing.

6. Remove the 2 Crossovers and check for any chemical buildup. Rinse if necessary, outside of the Multiloader.

7. Check that the 2 Crossover Troughs are on the bottom of the Developer/Fixer and Fixer/Wash Crossovers.

Rollers

Developer/Fixer
Crossover

Crossover
Trough

Rollers

Fixer/Wash
Crossover

Crossover
Trough

H186_2133CCA
H186_2133CC

8. Check that the developer and fixer solutions are near the overflow levels of each tank.

9. Install the 2 Crossovers.

10. Connect the Water Disconnect.

11. Install the Evaporation Covers.

12. Install the Wet Section Cover.

⚠ **Warning**
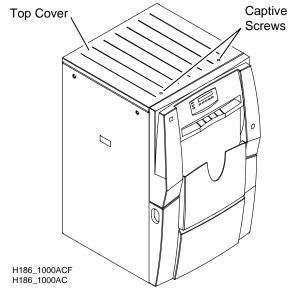
See Step 9 on Page 4–11 when doing Step 13.

13. Gently push in the Processor.

14. Check that the Magazine Door and the Top Cover are closed, and both Captive Screws are tight.

Top Cover

Captive Screws

H186_1000ACF
H186_1000AC
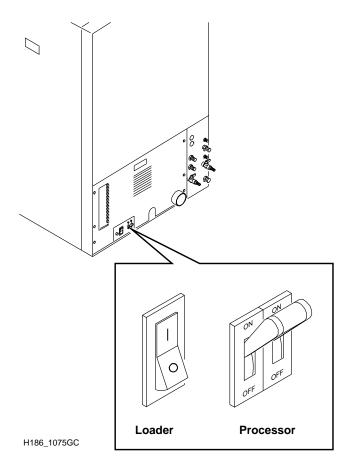
15. Turn on the water.

▷ **Note**
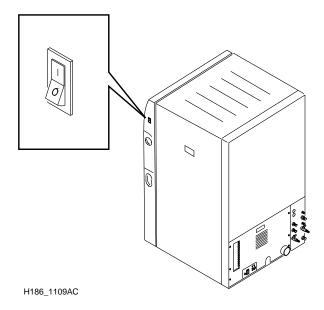
The temperature of the incoming water should be 4 - 29°C (40 - 85°F).

16. Move both Circuit Breakers on the back of the Multiloader to the "1" position.

Loader   **Processor**

H186_1075GC

17. Press the Switch on the side of the Multiloader to the "1" position.

H186_1109AC
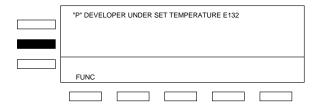
▷ **Note**

The Fan is running when the mains plug is connected or the wall-mounted main switch is in the "1" position.
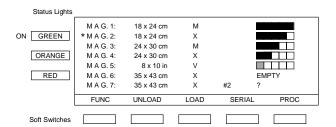
▷ **Note**

The Processor requires approximately 20 minutes to warm-up. "P DEVELOP UNDER SET TEMPERATURE E132" will be displayed and the orange Status Light will illuminate.

```
                    "P" DEVELOPER UNDER SET TEMPERATURE E132




                    FUNC
```

H186_8502AC

When the Processor has reached the required temperature, the following will be displayed and the green status light will be illuminated.

```
Status Lights
                 M A G. 1:     18 x 24 cm     M
ON   GREEN     * M A G. 2:     18 x 24 cm     X
                 M A G. 3:     24 x 30 cm     M
     ORANGE      M A G. 4:     24 x 30 cm     X
                 M A G. 5:      8 x 10 in     V
     RED         M A G. 6:     35 x 43 cm     X        EMPTY
                 M A G. 7:     35 x 43 cm     X    #2   ?
                 FUNC      UNLOAD      LOAD     SERIAL     PROC
Soft Switches
```

H186_8501AC

The Multiloader is ready for use.

▷ **Note**
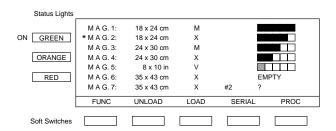
You can also program the Processor to turn on automatically by setting the automatic on/off timers. See "Automatic On and Off Timers" on page 5–60.

Inserting a Cassette

The Processor will only operate with KODAK X-OMATIC Cassettes, KODAK X-OMATIC Video Film Holder and KODAK MIN-R 2 Cassettes.

1. Check that the green status light is illuminated and the Display Panel indicates the Cassette sizes that are available.

Status Lights

	M A G. 1:	18 x 24 cm	M	▇▇▇
ON GREEN	* M A G. 2:	18 x 24 cm	X	▇▇▇▢
	M A G. 3:	24 x 30 cm	M	▇▇▢▢
ORANGE	M A G. 4:	24 x 30 cm	X	▇▢▢▢
	M A G. 5:	8 x 10 in	V	▨▢▢▢
RED	M A G. 6:	35 x 43 cm	X	EMPTY
	M A G. 7:	35 x 43 cm	X	#2 ?

FUNC	UNLOAD	LOAD	SERIAL	PROC
Soft Switches ☐	☐	☐	☐	☐
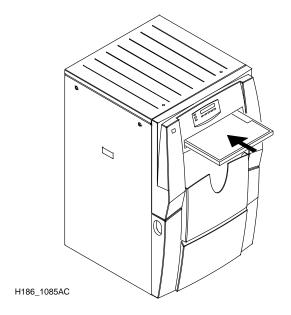
H186_8501AC

⚠️ **Warning**
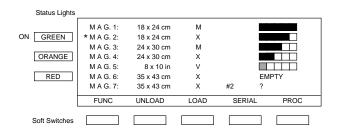
Do not place hands in the Cassette Entrance. Release the Cassette as soon as it is pulled into the Multiloader.

2. Insert the Cassette with the Latch side up and the metal edge towards the Processor.

H186_1085AC

The Cassette will be pulled into the Multiloader and the orange status light will illuminate. The following will be displayed.

Status Lights

		M A G. 1:	18 x 24 cm	M	
ON	GREEN	* M A G. 2:	18 x 24 cm	X	
		M A G. 3:	24 x 30 cm	M	
	ORANGE	M A G. 4:	24 x 30 cm	X	
		M A G. 5:	8 x 10 in	V	
	RED	M A G. 6:	35 x 43 cm	X	EMPTY
		M A G. 7:	35 x 43 cm	X	#2 ?

	FUNC	UNLOAD	LOAD	SERIAL	PROC

Soft Switches

H186_8501AC

This indicates that a Cassette is inside the Multiloader and an unload/load operation cycle is in progress.
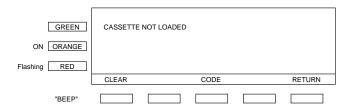
After unloading an exposed film and loading unexposed film, the Cassette will be returned. When the Cassette is removed the green status light will illuminate. The orange light will remain illuminated until the film exits the Multiloader.

The display will return to the main menu. The Multiloader is ready for the next operation.

If the green and orange status lights are illuminated, a film is still inside the Multiloader, but the system is ready to accept the next Cassette.

If the red status light flashes and the audible alarm sounds, remove the Cassette and press **CLEAR** to cancel the message on the Display Panel.
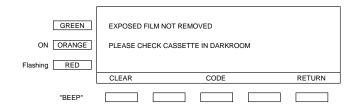
The warning message must be cancelled by pressing the soft switch marked **CLEAR**, after the Cassette has been removed.

		CASSETTE NOT LOADED		
	GREEN			
ON	ORANGE			
Flashing	RED			

	CLEAR		CODE		RETURN

"BEEP"

H186_8504AC

3. Press **CODE** to display the error code. Record the error code. If the red status light is constantly illuminated and the audible alarm sounds, follow the instructions on the display and see "Error Messages" on page 6–10.

GREEN	EXPOSED FILM NOT REMOVED
ON ORANGE	PLEASE CHECK CASSETTE IN DARKROOM
Flashing RED	
	CLEAR CODE RETURN
"BEEP"	
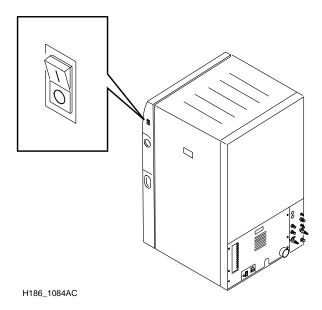
H186_8505AC

For other functions see "Special Functions" on page 3–8.

Turning Off the Multiloader

1. Press the Multiloader Switch to the "0" position.

H186_1084AC

2. Turn off the water supply.

3. If you turn off the Multiloader overnight or for a longer period of time, do the following to avoid condensation.

    a. Gently pull out the Processor until it locks into place.

    b. Remove the Wet Section Cover, see Page 2–3.

> **Note**

You can program the Multiloader to turn off automatically by setting the automatic off time. See "Automatic On and Off Timers" on Page 5–60.

⚠ **Warning**

See Step 9 on Page 4–11 when doing Step 4.

4. Carefully push the Processor back into the Multiloader until the Latches click into position.

3 Overview

General Description

Overview

The KODAK X-OMAT Multiloader 7000 (Multiloader) is an integrated load/unload/processing unit.

- Both the load/unload module and the module of the Processor are Microprocessor-controlled. Special functions, statistics, and controls are accessed by the soft switches and the Display Panel on the front of the Multiloader. There are neither mechanical nor operator interventions to the Processor module other than routine cleaning.
- See page 3–2 for information on the controls and messages via the soft switches and the Display Panel.

Operation

When a Cassette is inserted, the Multiloader recognizes the cassette size and selects the Magazine with the correct size film.

- The Cassette is opened and the exposed film is removed and transported via the Conveyor to the Film Chute and Processor Interface. The Interface feeds the film to the Processor. The Multiloader initiates the Processor and sends the film dimensions to the Processor Replenisher System for accurate area replenishment. At the same time, unexposed film is selected from the Magazine and loaded into the Cassette.
- The Cassette is closed and returned to the operator within 20 seconds from Cassette insertion.

Cassette Sizes and Types

Cassette Type:	KODAK X-OMATIC Cassette
	KODAK MIN-R 2 Cassette
	KODAK X-OMATIC Video Film Holder

Cassette Sizes:

KODAK X-OMATIC Cassette	18 x 24 cm	30 x 40 cm
	18 X 43 cm	35 x 35 cm
	24 x 24 cm	35 x 43 cm
	20 x 40 cm	8 x 10 in.
	24 x 30 cm	10 x 12 in.
	30 x 35 cm	11 x 14 in.
	15 x 30 cm	

| KODAK MIN-R 2 Cassette | 18 x 24 cm |
| | 24 x 30 cm |

| KODAK X-OMATIC Video Film Holder | 8 x 10 in. |

Film Supply Magazine

Magazines are adjustable for all Cassette sizes; 7 may be installed in the Multiloader at any one time.
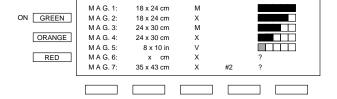
The magazines contain up to 110 films each.

Display Panel Status Lights

Status Lights	Description
Green On	The Multiloader is ready, a Cassette can be inserted.
Orange On	The Multiloader is in operation, a Cassette is being unloaded/loaded.
Green and Orange On	The film is in the Processor and the Multiloader can accept a Cassette.
Red Flashing	CAUTION, observe messages on the Display Panel.
Red On	Malfunction indication, observe messages on the Display Panel and follow the instructions.

An audible alarm will draw attention to the red Status Light.

Cassette Types and Magazine Volumes

```
         ON   GREEN      M A G. 1:    18 x 24 cm    M
                         M A G. 2:    18 x 24 cm    X
                         M A G. 3:    24 x 30 cm    M
              ORANGE     M A G. 4:    24 x 30 cm    X
                         M A G. 5:     8 x 10 in    V
              RED        M A G. 6:        x  cm     X          ?
                         M A G. 7:    35 x 43 cm    X    #2    ?
```
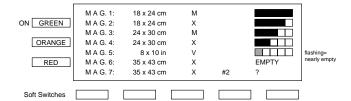
H186_8506AC

Cassette Type	Description
X	Radiography, X-OMATIC Cassette
M	Mammography, MIN-R4-2 Cassette
V	Video, X-OMATIC Video Film Holder
#2	Alternative or Special film
?	The "?" sign indicates that a new magazine has been installed. Until it has been used, the Multiloader does not know the volume of film within the Magazine. After one film is taken from the Magazine the display will register the volume of the film.

Magazine Status

	M A G. 1:	18 x 24 cm	M	▮▮▮
ON GREEN	M A G. 2:	18 x 24 cm	X	▮▮□
	M A G. 3:	24 x 30 cm	M	▮▮□
ORANGE	M A G. 4:	24 x 30 cm	X	▮□□
	M A G. 5:	8 x 10 in	V	▮□□ flashing= nearly empty
RED	M A G. 6:	35 x 43 cm	X	EMPTY
	M A G. 7:	35 x 43 cm	X	#2 ?
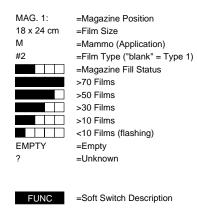
Soft Switches ☐ ☐ ☐ ☐ ☐

H186_8500AC

DESCRIPTION

MAG. 1:	=Magazine Position
18 x 24 cm	=Film Size
M	=Mammo (Application)
#2	=Film Type ("blank" = Type 1)
▮□□	=Magazine Fill Status
▮▮▮▮	>70 Films
▮▮▮□	>50 Films
▮▮□□	>30 Films
▮□□□	>10 Films
▮□□□	<10 Films (flashing)
EMPTY	=Empty
?	=Unknown

FUNC	=Soft Switch Description

H186_1088AC

Magazine Access
Overview

- When you open the Magazine Door, the orange Status Light illuminates.
- When you close the Magazine Door, the display returns to the main display, and the green Status Light illuminates.
- When a Magazine is removed, the Display Panel indicates the Magazine level without size, application, type and film quantity.
- When a new Magazine is inserted, or the same Magazine is inserted again, the display shows a "?" for the film quantity until the first film is removed from the magazine, during normal operation.
- If the error message "Remove and Check Magazine" appears, see "Error Messages" on Page 6–10.
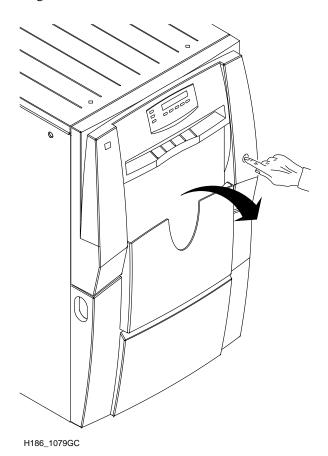
Loading Magazines

✸ **Important**
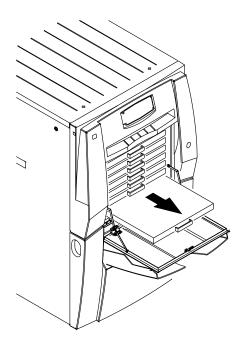
The Magazine Door can only be opened in the "Ready" mode.

1. Open the Magazine Door.

H186_1079GC

2. Pull the Magazine Drawer out.

H186_1080GC

![Important symbol] **Important**

Do not carry the Magazine by the Handle, the films may fall out if the Magazine is not closed completely.
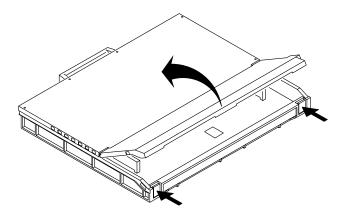
3. Lift the Magazine slightly and pull it straight out of the Drawer.

4. Push the Magazine Drawer gently in.

5. Close the Magazine Door.

✸ **Important**

Open the Magazine only in a darkroom under the appropriate safelight conditions.

   6. Place the Magazine on a flat surface in the darkroom. Push the 2 Latches in and lift the Lid to open the Magazine.
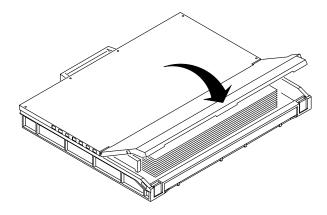
H186_1081AC

   7. Open a new Film Pack.

   8. Remove the films and fan them carefully.

   9. Remove the old films from the Magazine.

  10. Push the new films all the way into the Magazine.

▷ **Note**

Single emulsion films must be loaded into the Magazine with the emulsion up.
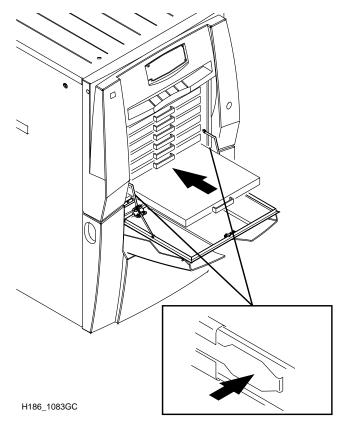
  11. Place the old films removed in Step 9 on top of the new films. They should be used first.

  12. Close the Magazine Lid and press down on the 2 Latches.

H186_1082AC

13. Open the Magazine Door and gently pull out the Magazine Drawer.

14. Insert the Magazine into the Drawer.

15. Check that the Magazine fits beyond the Black Rollers.

16. Release the 2 Drawer Locks and push the Magazine Drawer gently back into the Multiloader.

H186_1083GC

17. Close the Magazine Door. The available film formats are displayed.

Special Functions
Overview

Special Functions are features that enable you to:

- Load empty Cassettes
- Unload Cassettes without reloading film
- Continuously unload a magazine into the Processor using an empty Cassette
- Assign multiple film types for the same size Cassette, display film usage statistics, and change the display language.
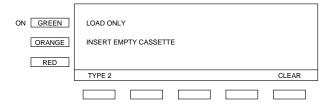
Special Functions are displayed on the bottom line of the display. Press the Soft Switch below the function to select the function.

Load

Use "Load" to insert the film into an empty Cassette.

1. Start at the "Ready Status" on the Display Panel.

2. Press **LOAD**.

   The following screen is displayed.

```
ON  [ GREEN ]      LOAD ONLY

    [ ORANGE ]     INSERT EMPTY CASSETTE

    [ RED ]

                  TYPE 2                           CLEAR
    [      ]  [      ]  [      ]  [      ]  [      ]
```
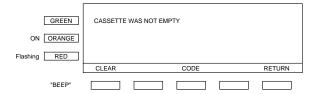
H186_8508AC

3. Press **TYPE 2** to load a Cassette with Type 2 Film.

4. Insert an empty Cassette.

- The Multiloader checks whether a film is in the Cassette. If the Cassette contains a film, a message is displayed and an audible alarm sounds. The film is transported to the Processor and the Cassette loaded. Press **CLEAR** to stop the alarm.

- The Cassette is loaded as requested.

H186_8509AC

Unload Only

Use "Unload Only" to remove the film from a Cassette and not reload the film.

1. Start at the "Ready Status" on the Display Panel.

2. Press **Unload**.

The following is displayed.

H186_8510AC

3. Insert a Cassette

- The Cassette is returned either with the Latch open or closed, depending on how it has been set at installation by the Kodak Service Representative.

- If the Cassette is inserted empty for Unload Only, a message is displayed and an audible alarm sounds. Press **CLEAR** to stop the alarm.

Serial Unloading

Use "Serial Unloading" for continuous unload of a Magazine into the Processor using an empty Cassette in the Multiloader.

▷ **Note**

Before using Serial Unloading, increase the dryer temperature by approximately 5°C (9°F). See page 4–2.
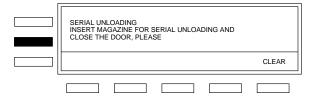
1. Press **Serial Unloading**. If there is no Magazine level free, the following screen is displayed.

```
SERIAL UNLOADING
PLEASE REMOVE ANY MAGAZINE

INSERT MAGAZINE FOR SERIAL UNLOADING AND
CLOSE THE DOOR, PLEASE

                                        CLEAR
```

H186_8598AC

2. Remove the Magazine. The next Magazine inserted is identified as "Serial Unloading" Magazine.
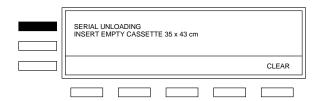
   If there is at least one magazine level free when pressing Serial Unloading, the following screen is displayed immediately.

```
SERIAL UNLOADING
INSERT MAGAZINE FOR SERIAL UNLOADING AND
CLOSE THE DOOR, PLEASE

                                        CLEAR
```

H186_8596AC

After closing the Magazine Door, the appropriate empty Cassette is requested.

```
┌──────────────────────────────┐
│ SERIAL UNLOADING             │
│ INSERT EMPTY CASSETTE 35 x 43 cm │
│                              │
│                      CLEAR   │
└──────────────────────────────┘
```

H186_8597AC

▷ **Note**

The Multiloader checks whether the inserted Cassette is empty. If the Cassette is not empty, "NO MESSAGE" is displayed. The film (exposed or not) is unloaded, and Serial Unloading started.

During the unload cycle, a count of the films removed from the Magazine is displayed.

```
┌──────────────────────────────┐
│ SERIAL UNLOADING 30 x 35     │
│ 5 FILMS UNLOADED             │
│                              │
│                      CLEAR   │
└──────────────────────────────┘
```

H186_8594AC

When the Magazine is empty, the Cassette is returned empty and unlatched, if selected. The display shows the following screen.

```
┌──────────────────────────────┐
│ SERIAL UNLOADING FINISHED    │
│ 8 FILMS UNLOADED             │
│                              │
│                      CLEAR   │
└──────────────────────────────┘
```

H186_8595AC

![Important symbol] **Important**

Press **CLEAR to** return to the standard menu.

3. Press **CLEAR** to interrupt the serial unloading process for normal use for emergency films.

4. Press **CLEAR** again to display the main menu then the emergency Cassette can be inserted.
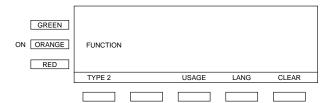
▷ **Note**

Set the dryer temperature back to the normal value after Serial Unloading has finished and before proceeding with other functions.

Function

Use "FUNC" to access the TYPE 2, USAGE and LANG Special Functions.

1. Start at the "Ready Status" on the Display Panel.

2. Press **FUNC**. The following is displayed.

```
        GREEN

ON    ORANGE      FUNCTION

         RED

                TYPE 2          USAGE    LANG    CLEAR
```

H186_8511AC
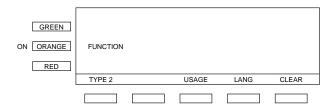
Film Type 2

Use Type 2 to assign another film type for the same size Cassette.

    1. Press **FUNC.**

```
          GREEN
    ON   ORANGE      FUNCTION
           RED
                    TYPE 2          USAGE    LANG    CLEAR
```

H186_8511AC

    2. Press **TYPE 2**.

    3. The Multiloader may be "loaded" with either of two different film types of the same size.

▷ Note
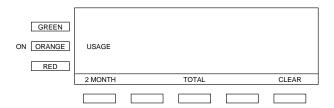
- In order to prevent picking a wrong film, the Cassettes and Magazines used for film Type 2 must be coded by your Kodak Service Representative, or a Kodak trained key operator.

- The Multiloader then automatically recognizes the special Cassette and loads it with the special film without having to press **TYPE 2**.

- Should it be necessary to load Cassettes without codes, press **TYPE 2**.

- The selected Special Function is valid only for the current cycle.

- After removing the Cassette from the Entrance Slot, the Multiloader returns to normal mode.

Film Usage

Use Film Usage to display the film status.

1. Press **FUNC**.
2. Press **USAGE**.

H186_8512AC

3. Press **2 MONTH** to display the number of films used during the current and the previous month by size and by type.
4. Press the Δ or ∇ to display the other sizes.
5. Press **TOTAL** to display the number of films used last year and this year.
6. Press **CLEAR** to return to the main menu.

Languages
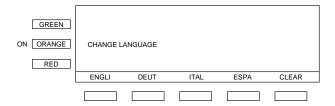
Use LANG to set the display language options:

English	Finish
French	Norwegian
German	Spanish
Italian	Swedish
Danish	Portuguese
Dutch	

A maximum of 4 can be displayed. The selection will be made during installation by the Kodak Service Representative.

1. Press **FUNC**.
2. Press **LANG**.

```
         GREEN
 ON      ORANGE       CHANGE LANGUAGE
         RED
              ENGLI      DEUT      ITAL      ESPA      CLEAR
```

H186_8513AC

3. Press the desired language Soft Switch. After the selection, the display returns to the main menu.
4. Press **CLEAR** to cancel your selection.
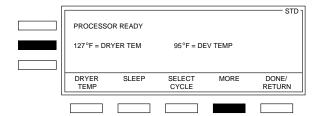
4 Operating Instructions

KODAK X-OMAT 3000 RA Integrated Processor
Status Display
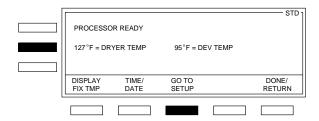
1. At the main menu press **PROC**. The display changes to the Processor Main Menu.

```
                                                          STD ┐
     PROCESSOR READY

     127°F = DRYER TEM          95°F = DEV TEMP


     DRYER      SLEEP     SELECT      MORE      DONE/
     TEMP                 CYCLE                 RETURN
```

H186_8514AC

There are 2 Processor Main Menus.

2. Press **MORE** to display the second menu.

```
                                                          STD ┐
      PROCESSOR READY

      127°F = DRYER TEMP          95°F = DEV TEMP


      DISPLAY    TIME/     GO TO               DONE/
      FIX TMP    DATE      SETUP               RETURN
```

H186_8515AC

The "GO TO SETUP" selection requires an access code and is for Kodak trained Key Operators and Kodak Service Representatives.

Changing the Dryer Temperature

1. At the Processor Main Menu, press **DRYER TEMP**.

2. Press the appropriate key to increase or decrease the dryer temperature or to set the temperature to the default setting.

Δ **DRYER**	Increase the Dryer temperature.
∇ **DRYER**	Decrease the Dryer temperature.
DEFAULT SETTING	Return the Dryer to the default setting.
DONE/RETURN	Return the display to the previous screen.

3. Press **DONE/RETURN**.
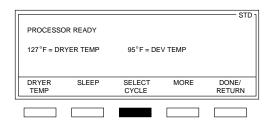
Changing the Processing Cycle

There are 3 film cycles to process the film:

- standard (STD)
- rapid (RAPID)
- K/RA

Standard and rapid are selected as follows.

1. At the Processor Main Menu, press **SELECT CYCLE**.

```
                                                    STD

   PROCESSOR READY

   127°F = DRYER TEMP        95°F = DEV TEMP


   DRYER      SLEEP      SELECT      MORE      DONE/
   TEMP                  CYCLE                 RETURN
```

H186_8516AC

2. Press the appropriate key for the required cycle.

```
   RAPID      STD                              DONE/
   CYCLE      CYCLE                            RETURN
```

H186_8517AC

3. Press **DONE/RETURN** until you return to the Processor Main Menu.

> **Note**

The K/RA cycle is not available from this menu. Special chemicals and films are required. This cycle may only be selected by a Kodak trained Key Operator and a Kodak Service Representative.

Cycle Information

Cycle	Process Time In Seconds	Drop Time In Seconds	Films and Chemicals	Throughput Films/hour
K/RA USA	48	58	RA Films and RA Chemicals	270
K/RA Outside USA	64	77	RA Films and RA Chemicals	201
Rapid	64	77	KODAK Films and KODAK X-OMAT Chemicals	148
Standard	86	105	KODAK Films and KODAK X-OMAT Chemicals	148

Cycle   The film processing cycle that is currently selected.

Process Time   The time it takes the leading edge of a 35 x 43 cm (14 x 17 in.) sheet of film to move from the Entrance Rollers to the Exit Rollers of the Dryer Rack.

Drop Time   The time it takes the leading edge of a 35 x 43 cm (14 x 17 in.) sheet of film, fed 43 cm wide, entering the Entrance Rollers until the trailing edge exits the Dryer Rack.

Film and Chemicals   For optimum image quality use KODAK Films in combination with KODAK X-OMAT Developers and Fixers or the equivalent.
NOTE: For the K/RA Cycle, contact your Kodak Service Representative for film and chemistry recommendations.

Throughput   The number of 35 x 43 cm (14 x 17 in.) sheets of film, fed 43 cm wide, that can be processed in 1 hour.

Changing from STD to RAPID requires approximately 5 minutes for the temperatures to change and stabilize. From RAPID to STD requires approximately 15 minutes for the temperatures to reduce.

The cycle will be shown on the Display Panel of the KODAK X-OMAT Multiloader 7000 (Multiloader).

Replenisher rates, speed, and temperatures are automatically adjusted for the chosen cycle.
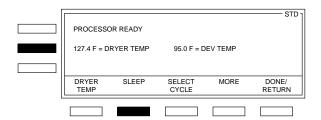
Sleep Mode

Entering Sleep Mode

When the Processor is in sleep mode, it appears to be "OFF" but the Microprocessor remains active. Depending upon the configuration of other options; the heaters, motors and solenoids remain off while the Processor is in the sleep mode.

While the Processor is in the sleep mode, you cannot feed films or access any of the Processor setup screens.

1. At the Processor Main Menu press **SLEEP**.

```
                                                    STD
   ┌────┐   ┌──────────────────────────────────────────┐
   │    │   │  PROCESSOR READY                          │
   ├────┤   │                                           │
   │    │   │  127.4 F = DRYER TEMP     95.0 F = DEV TEMP│
   ├────┤   │                                           │
   │    │   │                                           │
   └────┘   │  DRYER     SLEEP    SELECT    MORE   DONE/ │
            │  TEMP               CYCLE            RETURN│
            └──────────────────────────────────────────┘
            ┌────┐  ┌────┐  ┌────┐  ┌────┐  ┌────┐
            └────┘  └────┘  └────┘  └────┘  └────┘
```

H186_8518AC

2. Press **YES** to turn sleep mode on or **CANCEL** to quit.

```
                                                    STD
   ┌────┐   ┌──────────────────────────────────────────┐
   │    │   │  PROCESSOR NOT READY                      │
   ├────┤   │                                           │
   │    │   │  ARE YOU SURE?                            │
   ├────┤   │                                           │
   │    │   │                                  CANCEL   │
   └────┘   │      YES                         REQUEST  │
            └──────────────────────────────────────────┘
            ┌────┐  ┌────┐  ┌────┐  ┌────┐  ┌────┐
            └────┘  └────┘  └────┘  └────┘  └────┘
```

H186_8519AC

If you have programmed the Automatic On and Off Timers under the "AUTO STARTUP" menu, the screen below will be displayed. The screen remains displayed until the Automatic Timer turns on or until you press **WAKE**.

```
                                          STD
  ┌──────┐   PROCESSOR NOT READY
  │      │
  ├──────┤   7:30 AM MONDAY = NEXT ON TIME
  │      │
  ├──────┤
  │      │                              WAKE
  └──────┘
  ☐  ☐  ☐  ☐  ■
```

H186_8520AC

If you have not programmed the Automatic On and Off Timers, the display will show the message "Processor in Sleep Mode."

Exiting Sleep Mode

There are 2 ways to exit the sleep mode:

- If you have programmed the Automatic On and Off Timers, you can allow the pre-programmed On Timer to exit the sleep mode.
- Press **WAKE** on the following menu:

```
                                          STD
  ┌──────┐   PROCESSOR NOT READY
  │      │
  ├──────┤   7:30 AM MONDAY = NEXT ON TIME
  │      │
  ├──────┤
  │      │                              WAKE
  └──────┘
  ☐  ☐  ☐  ☐  ■
```

H186_8520AC

Displaying the Fixer Temperature

To display the temperature of the fixer solution, press **DISPLAY FIX TEMP** on screen 2 of the Processor Main Menu. The temperature reading will be displayed for the fixer solution.

> **Note**

The setpoint temperature for the fixer solution is a minimum only; the temperature may rise above this set point.

To return to the Processor Main Menu, press **DONE/RETURN**.

Displaying the Time and Date

To display the current time and date, press **TIME/DATE** on the display panel. The current time and date will be displayed. Press **DONE/RETURN** to return to the Processor Main Menu.
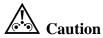
Clean-Up and Maintenance

Weekly Clean-Up and Maintenance
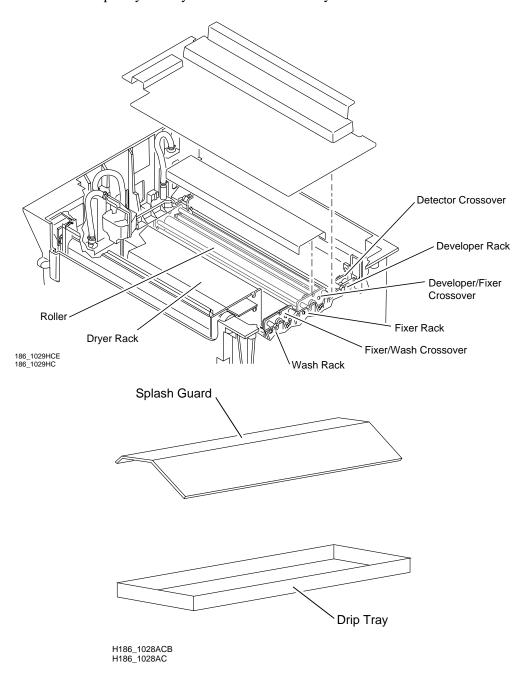
⚠ Warning

- Move the 2 Circuit Breakers (Loader and Processor) on the back of the Multiloader 7000 to the "0" position.

- Always disconnect the Multiloader main power (either the mains plug, grasp the mains plug only, or move the wall-mounted main switch to the "0" position) before performing any of the following weekly procedures.

- Only a trained Kodak Service Representative can perform the following procedures.

- Wear rubber gloves, safety glasses, and protective clothing when doing the weekly maintenance. Report any change in the operating condition of the Processor to your Kodak Service Representative.

- Reliable operation of the Processor requires that you clean all parts correctly. More frequent maintenance may be necessary because of site conditions or actual usage. For monthly and quarterly maintenance, contact your trained Kodak Service Representative.

- When performing the following cleaning procedure in Steps 1 - 8, only clean and rinse the described parts of the Processor when the parts are removed from the Processor.

- Only a Kodak trained Key Operator can perform the following procedures.

⚠ **Caution**

- Handle these assemblies carefully to prevent changing the alignment.
- Use a synthetic sponge and warm water.
- **Do not** wash the Racks and Crossovers with water above 44°C (110°F).
- **Do not** clean the Racks, Crossovers, or Rollers using abrasive materials or alcohol.
- To prevent fixer or developer contamination when removing the Fixer or Developer Rack, place the Splash Guard between the Developer and Fixer Tanks. Use the Drip Tray when you remove or install any of the racks.

Detector Crossover

Developer Rack

Developer/Fixer
Crossover

Roller

Fixer Rack

Dryer Rack

Fixer/Wash Crossover

Wash Rack

186_1029HCE
186_1029HC

Splash Guard

Drip Tray

H186_1028ACB
H186_1028AC

⚠ **Warning**
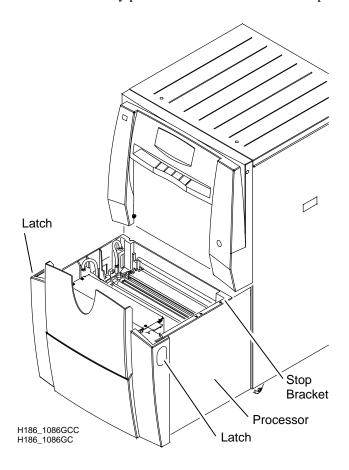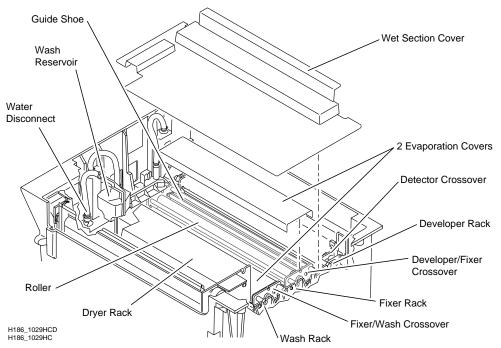
Dangerous Voltage

1. Always disconnect the main power (either the mains plug, grasp the mains plug only, or move the wall-mounted main switch to the "0" position) from the Multiloader.

2. Release both Latches. Gently pull out the Processor to avoid splashing.

Latch

Stop
Bracket

Processor

H186_1086GCC
H186_1086GC

Latch

.

3. Remove:

- Wet Section Cover
- 2 Evaporation Covers
- Wash Reservoir
- All Crossovers
- Wash Rack

4. Rinse the Crossovers, Water Reservoir, and the Wash Rack with warm water, no hotter than 44°C (110°F). Wipe the Rollers and the Guide Shoes with a damp, soft, synthetic sponge.

5. Allow the Entrance Crossover to air dry before you install it.

Guide Shoe

Wash Reservoir

Water Disconnect

Roller

Dryer Rack

H186_1029HCD
H186_1029HC

Wet Section Cover

2 Evaporation Covers

Detector Crossover

Developer Rack

Developer/Fixer Crossover

Fixer Rack

Fixer/Wash Crossover

Wash Rack

6. Wipe any chemical deposits from the processing section.

7. Check:

- all Rollers on the Crossovers and Wash Rotate rotate freely
- the squareness of the Crossovers and the Wash Rack
- the Crossover Troughs are not broken or cracked

8. Install the following parts. Check that each assembly is firmly seated.

- Wash Rack
- All Crossovers
- Wash Reservoir
- Evaporation Covers
- Wet Section Cover

![Warning] **Warning**

9. To reduce/minimize the possibility of personal injury when moving the Processor into the Multiloader, the following procedure should be followed.

   a. Pull the Processor out approximately 1 cm (0.39 in.) further to release the tension on the Stop Bracket, and hold the Processor in this position.

   b. Push the Stop Bracket to the left side. Place the fingers at the slope of the Stop Bracket located opposite the tension.

   c. Carefully move the Processor in approximately 2 cm (0.79 in.).

![Caution] **Caution**

Before moving the Processor any further, move your hands away from the Stop Bracket. Place both hands into the openings of the left and right Latches on the Front Cover of the Processor to avoid contact with any moving parts.

   d. Carefully push the Processor back into the Multiloader until both Latches click into position.

10. Connect the Multiloader main power (either the mains plug, grasp the mains plug only, or move the wall-mounted main switch to the "1" position).

11. Process a test film.

Humidifier Maintenance

If your Multiloader is equipped with a Humidifier, the Humidifier Filter Cartridge should be changed at least every 6 months, or as needed.

![Warning] **Warning**

Only Kodak Service Representative can change the Cartridge.

5 Key Operator Instructions

Resizing Magazines
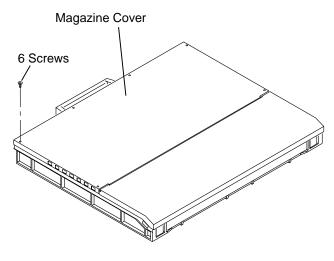
Your Kodak trained Key Operator can change factory settings.

You can code the Magazines to hold the film sizes in the table below.

It is also possible to code each size from the list below as a Type 2 film.

Film			
General Radiography	**Mammography**	**CRT**	**Dental**
18 x 43 cm			
20 x 40 cm			
24 x 24 cm			
24 x 30 cm			
18 x 24 cm			
30 x 35 cm	18 x 24 cm	8 x 10 in.	15 x 30 cm
30 x 40 cm	24 x 30 cm		
35 x 35 cm			
35 x 43 cm			
8 x 10 inch			
10 x 12 inch			
11 x 14 inch			

1. Remove the 6 Screws and the Magazine Cover.

Magazine Cover

6 Screws

H186_1077ACA
H186_1077AC
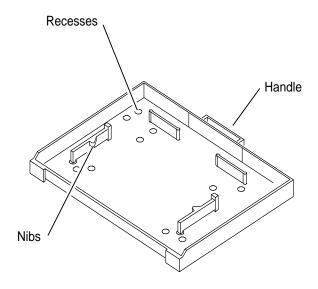
✳ **Important**

The Left and Right Stops have to be positioned with their Nibs as indicated in the graphic. Otherwise the magazine cannot be closed.

2. Place the Stops in the Recesses corresponding to the film size. The film sizes are marked in the recesses. If you do not use all the Stops for the rear, place the extra Stops to the left or right side in the Magazine.

Recesses

Handle

Nibs

H186_1039GCB
H186_1039GC
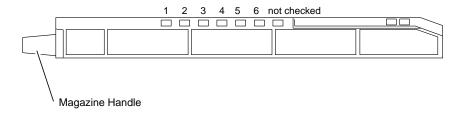
3. Install the Magazine Cover. The mechanical setting of the Magazine is completed.

4. Install the Reflective Stickers for the correct size on the Magazine. See the Size and Type Code Chart.

Size and Type Code
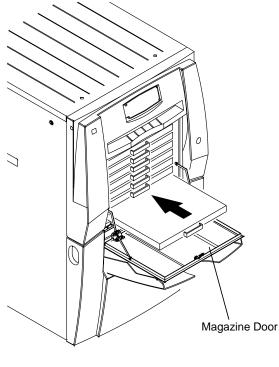
Film Type 1							Film Type II					
Format	**1**	**2**	**3**	**4**	**5**	**6**	**1**	**2**	**3**	**4**	**5**	**6**
18 x 24 cm	1	0	0	0	0	0	1	0	0	0	1	0
24 x 24 cm	0	1	0	0	0	0	0	1	0	0	1	0
30 x 35 cm	0	1	1	0	0	0	0	1	1	0	1	0
35 x 35 cm	0	0	1	0	0	0	0	0	1	0	1	0
18 x 43 cm	1	0	0	1	0	0	1	0	0	1	1	0
24 x 30 cm	0	1	0	1	0	0	0	1	0	1	1	0
35 x 43 cm	0	0	1	1	0	0	0	0	1	1	1	0
30 x 40 cm	0	1	1	1	0	0	0	1	1	1	1	0
15 x 30 cm	0	0	0	0	1	0	0	0	0	0	0	1
8 x 10 in. CRT	1	1	0	0	0	0	1	1	0	0	1	0
8 x 10 in.	1	0	1	0	0	0	1	0	1	0	1	0
10 x 12 in.	1	1	1	1	0	0	1	1	1	1	1	0
11 x 14 in.	1	1	1	0	0	0	1	1	1	0	1	0
20 x 40 cm	1	0	1	1	0	0	1	0	1	1	1	0
18 x 24 cm MIN-R2	0	0	0	1	0	0	0	0	0	1	1	0
24 x 30 cm MIN-R2	1	1	0	1	0	0	1	1	0	1	1	0
No Magazine	0	0	0	0	0	0	0	0	0	0	0	0

Magazine Handle

H186_8001BCD
H186_8001BC

5. Open the Magazine Door.

6. Insert the recoded Magazine and close the Magazine Door.

Magazine Door

H186_1103GCA
H186_1103GC

7. From the Display Panel check that the correct film size is displayed. If not, remove the Magazine and check the setting of the Reflective Stickers.

8. Load the recoded Magazine with test films.

9. Check whether there is too much play between the films and the Stops in the Magazine. There must be no more than 4 mm (0.157 in.) clearance between the films and the Stops. If the play is too great, remove the films and check the setting of the Stops inside the Magazine.

✵ Important

Load the Magazine only if you are absolutely sure that the setting of the Reflective Stickers and the Stops is correct. Otherwise, serious damage to the KODAK X-OMAT Multiloader 7000 (Multiloader) can result.

10. Load the Magazine with unexposed films and insert the Magazine into the Multiloader.

Type 2 Coding of Cassettes
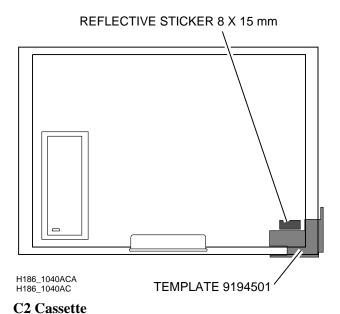
There are 2 ways of instructing the Multiloader to handle a TYPE 2 Cassette:

- Press **TYPE 2** on the Display Panel.
- If there is a Reflective Sticker on the top of the Cassette, this Cassette will always be handled as a TYPE 2 Cassette.
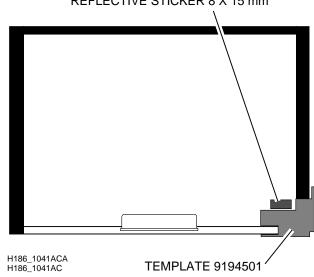
The Reflective Stickers can be ordered from Kodak, Part No. 9194551.

The KODAK MIN-R 2 Cassette and KODAK X-OMATIC Video Film Holder Cassette Reflective Stickers are very easy to install, as the correct position is marked by a recess on the top of the Cassettes. For all other cassettes a Template, Part No. 9194501, is required to install the Reflective Sticker in the correct position.

C1/C1N Cassette
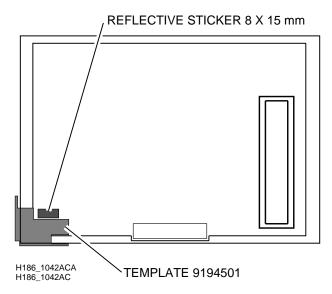
REFLECTIVE STICKER 8 X 15 mm

H186_1040ACA
H186_1040AC

TEMPLATE 9194501

C2 Cassette

REFLECTIVE STICKER 8 X 15 mm

H186_1041ACA
H186_1041AC

TEMPLATE 9194501

C3 Cassette

REFLECTIVE STICKER 8 X 15 mm

H186_1042ACA
H186_1042AC

TEMPLATE 9194501

MIN-R 2 Cassette

H186_1043ACA
H186_1043AC

REFLECTIVE STICKERS 8 X 15 mm
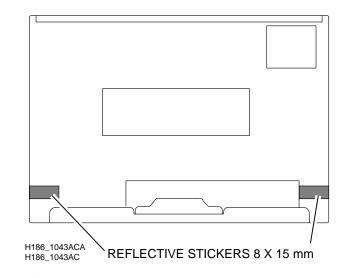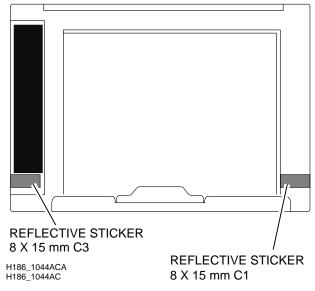
▷ **Note**

For TYPE 2 coding, install 2 Reflective Stickers on the Mammography Cassette.

KODAK X-OMATIC Video Film Holder

REFLECTIVE STICKER
8 X 15 mm C3

H186_1044ACA
H186_1044AC

REFLECTIVE STICKER
8 X 15 mm C1

$\Rightarrow$ **Note**

For KODAK X-OMATIC Video Film Holders, install the Reflective Stickers either at the right or left side (C1 or C3) of the Film Holder.

Failures and Error Handling

The Multiloader is a Microprocessor-controlled unit that minimizes the actions necessary to solve any possible problems in the unit. For any failure in the Multiloader, the Microprocessor starts an automatic error handling sequence.

When an error occurs, the Multiloader tries to save the exposed film; that is, unload the cassette, process the exposed film and return the cassette.

There are two groups of failures which can occur in the Multiloader:

- Failures that can only be solved by your Kodak Service Representative.

- Failures which can be corrected by the operator or by the Multiloader itself.

For any failure in the cycle of the Multiloader, the error and the action to be taken are displayed.

Some errors require more than 1 screen to display the error message. Press **MORE** to obtain more information on the screen.

ERROR MESSAGE 1

MORE

H186_8599AC

At installation, you can have the Kodak Service Representative adjust the Multiloader so that the operator can clear every error message by pressing **CLEAR.**

ERROR MESSAGE 2

MORE

H186_8600AC

At the end of the messages the following screen appears:

```
┌─────────────────────────────────────┐
│                                     │
│          LAST ERROR MESSAGE         │
│                                     │
├─────────────────────────────────────┤
│  CLEAR          CODE        RETURN   │
└─────────────────────────────────────┘
  ▭      ▭      ▭      ▭      ▭
```

H186_8601AC

Function Buttons

CLEAR	Press **CLEAR** after you followed the steps indicated in the error message. The Multiloader brings all Motors to the home position and checks their functions. If successful, the green Status Light illuminates, and you can start working again.
	If this automatic test was not successful, an error message appears again.
RETURN	Press **RETURN** to view the first display of the error message.
CODE	Press **CODE** to display the error code.
	A code appears on the Display Panel. Record the code, and give it to the Kodak Service Representative.

Multiloader Key Operator Instructions

```
        SY  CA  MA  MS  IN  PR
        XX  XX  XX  XX  XX

CLEAR                        RETURN
```

H186_8602AC

AUTOMATIC RESET OF THE MULTILOADER	
If successful:	the unit is ready for operation again.
If not successful:	call the Kodak Service Representative.

Failures Not Detected by the Multiloader

Only the following few errors are not detectable by the Multiloader:

Error	CAUSES
Wrong Film	Is the correct size displayed by the Multiloader?
	Are all magazines seated correctly?
	Move Magazine to another level. By moving the Magazine to another level, the problem of the wrong size detection might be solved, although there is a failure in the size direction. Inform your Kodak Service Representative of this failure.
	The magazine detection is correct; are the Cassette sizes correct?
Message	The Cassette edges may be damaged. Ask your Kodak Service Representative to check your Cassette.
TYPE 1 film loaded in a TYPE 2 coded Cassette	Are the reflectors on the cassette dirty or damaged? If so, replace Reflectors.
	If not, call your Kodak Service Representative. In the meantime, use the soft key for TYPE 2 selection.

Using the Access Code
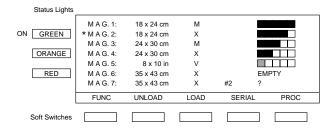
Only your Kodak Service Representative and Key Operator should have use of the access code. The Key Operator receives the access code when trained by Kodak. Press **GO TO SETUP** and enter the access code.

The access code is necessary to:

- change setup information preset at the factory
- change to or from the "K/RA" cycle

If the Limited Access Feature is off, an access code is not necessary to perform the functions listed below:

- select Processor cycles (except "K/RA")
- change dryer temperature
- display fixer temperature
- place the Processor in the sleep mode
- display the time and the date

1. On the Processor Main Menu press **PROC.**

Status Lights

M A G. 1:	18 x 24 cm	M	
* M A G. 2:	18 x 24 cm	X	
M A G. 3:	24 x 30 cm	M	
M A G. 4:	24 x 30 cm	X	
M A G. 5:	8 x 10 in	V	
M A G. 6:	35 x 43 cm	X	EMPTY
M A G. 7:	35 x 43 cm	X	#2 ?

ON GREEN

ORANGE

RED

FUNC   UNLOAD   LOAD   SERIAL   PROC

Soft Switches
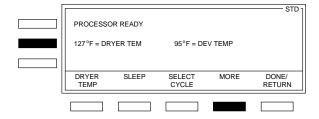
H186_8501AC

Screen 1 of the Processor Main Menu is displayed.

⬦ **Note**

All descriptions on the following pages start with this menu.

STD

PROCESSOR READY

127°F = DRYER TEM   95°F = DEV TEMP

DRYER TEMP   SLEEP   SELECT CYCLE   MORE   DONE/ RETURN

H186_8514AC
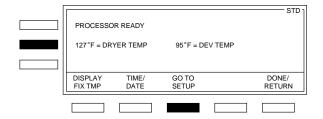
2. Press **MORE.**

Screen 2 of the Processor Main Menu is displayed.

```
                                                              STD
   ┌──────────┐    ┌─────────────────────────────────────────────┐
   │          │    │  PROCESSOR READY                             │
   └──────────┘    │                                              │
   ┌──────────┐    │  127˚F = DRYER TEMP        95˚F = DEV TEMP   │
   │██████████│    │                                              │
   └──────────┘    │                                              │
   ┌──────────┐    │                                              │
   │          │    ├──────────────────────────────────────────────┤
   └──────────┘    │ DISPLAY      TIME/      GO TO        DONE/    │
                   │ FIX TMP      DATE       SETUP        RETURN   │
                   └──────────────────────────────────────────────┘
                     ┌────┐   ┌────┐   ┌────┐   ┌────┐   ┌────┐
                     │    │   │    │   │████│   │    │   │    │
                     └────┘   └────┘   └────┘   └────┘   └────┘
```
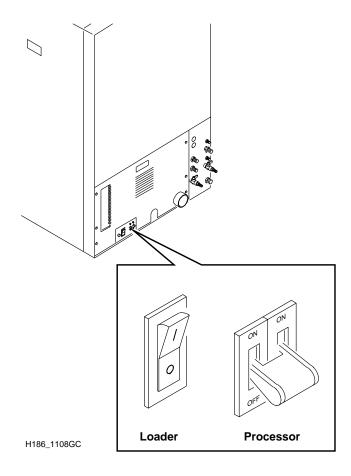
H186_8515AC

3. Press **GO TO SETUP.**

Draining the Tanks
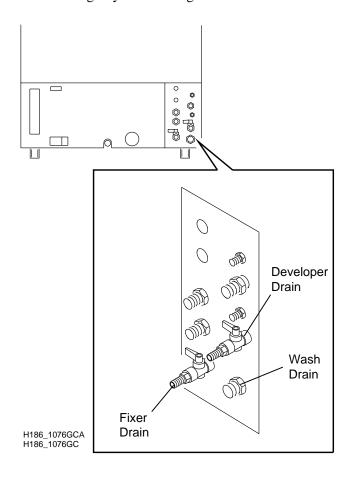
⚠️ **Warning**

- Move the Circuit Breakers (Loader and Processor) on the back of the Multiloader to the "0" position.
- Always disconnect the main power (either the mains plug, grasp the mains plug only, or move the wall-mounted main switch to the "0" position) from the Multiloader.

H186_1108GC

Loader   **Processor**

1. Open the Fixer and Developer Drain Valves.

2. Drain the chemicals into provided containers and perform disposal of the chemicals according to your local regulations.

Developer
Drain

Wash
Drain

Fixer
Drain

H186_1076GCA
H186_1076GC
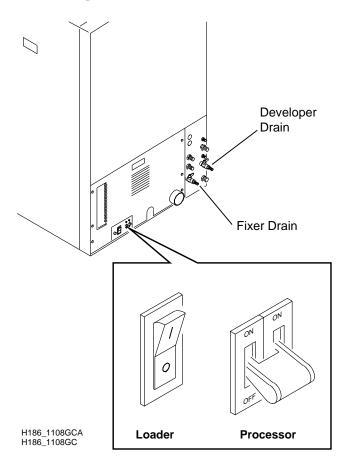
Mixing the Chemistry

⚠️ **Warning**

- Move the Circuit Breakers (Loader and Processor) on the back of the Multiloader to the "0" position.

- Always disconnect the main power (either the mains plug, grasp the mains plug only, or move the wall-mounted main switch to the "0" position) from the Multiloader.

1. Check that the Developer and Fixer Drain Valves are closed.

Developer Drain

Fixer Drain

H186_1108GCA
H186_1108GC

Loader   **Processor**

✳ **Important**

When mixing chemistry, follow all instructions and precautions. Mix only a 2 week supply of developer and fixer replenishment.

2. Determine which type of chemistry is needed for the operating cycle that you selected.

CYCLE	FILMS/CHEMICALS
K/RA	RA films/RA chemicals
Rapid	General Radiography films/KODAK X-OMAT chemicals
Standard	General Radiography films/KODAK X-OMAT chemicals

⚠ **Warning**

Wear rubber gloves, safety glasses, and protective clothing when mixing chemistry.

3. Following all directions provided with the solutions, mix at least 19 liters (5 gallons) of solution.
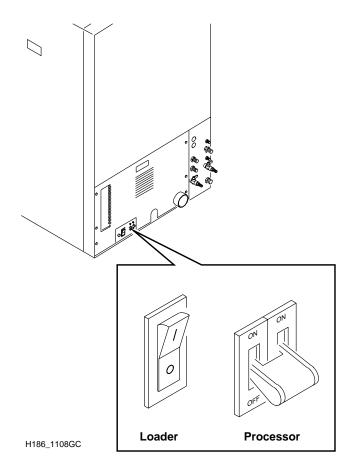
Filling the Processor Tanks

TANK FILL MODE is used to fill the Processor Tanks automatically. In this mode the Processor Tanks fill with solution from the Replenishment Tanks until the Level Sensors detect that the Processor tanks are full.
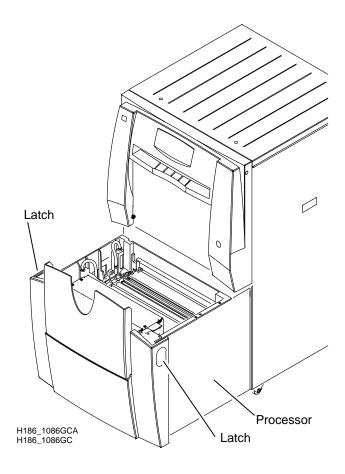
⚠ Warning

- Move the Circuit Breakers (Loader and Processor) on the back of the Multiloader to the "0" position.
- Always disconnect the main power (either the mains plug, grasp the mains plug only, or move the wall-mounted main switch to the "0" position) from the Multiloader.

H186_1108GC

Loader   **Processor**

1. Release the 2 Latches. Gently pull out the Processor until it locks in place, to avoid splashing, and check that the Racks are in the correct position.

2. Push the Processor back into the Multiloader.

3. Carefully push the Processor back into the Multiloader until the Latches click into position.

⚠ **Warning**

See Step 9 on 4–11.

4. Connect the Multiloader main power (either the mains plug, grasp the mains plug only, or move the wall-mounted main switch to the "1" position.

5. Move the Circuit Breakers (Loader and Processor) on the back of the Multiloader to the "1" position.

✱ **Important**

Check that the Drains are closed.

6. Turn on the Processor.
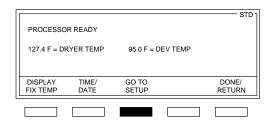
✱ **Important**

The Replenisher Pumps automatically start when the Processor is turned on.

7. Wait for the Multiloader Main Menu to appear on the Display Panel, then press **PROC**.

8. Press **MORE**.

9. Press **GO TO SETUP**.

```
                                                    STD

    PROCESSOR READY

    127.4 F = DRYER TEMP      95.0 F = DEV TEMP


    DISPLAY     TIME/      GO TO              DONE/
    FIX TEMP    DATE       SETUP              RETURN

    [    ]     [    ]     [████]     [    ]     [    ]
```

H186_8522AC

10. Enter the 4-digit access code.

```
     1          2          3          4       CANCEL
                                              REQUEST

   [████]     [████]     [████]     [████]    [    ]
```

H186_8523AC

11. Press **MORE**.

```
   DRYER      DRYER
     ∧          ∨        CYCLE      MORE      DONE/
                                              RETURN

   [    ]     [    ]     [    ]     [████]     [    ]
```

H186_8524AC

12. Press **OPTIONS**.

SETUP	OPTIONS			DONE/ RETURN

H186_8525AC

13. Press **REPLEN MODE**.

REPLEN MODE	DAILY STARTUP	DISPLAY UNITS	MORE	DONE/ RETURN

H186_8526AC

✱ **Important**

If the Developer and Fixer Tanks in the Processor are empty and you do not press **TANK FILL** a "Fill Error" occurs after approximately 4 minutes.

The Developer and Fixer Tanks will not fill if the Processor is not pushed into the Multiloader.

The Developer and Fixer Tanks require approximately 10 minutes to fill with solution.

When the tanks are full, the Replenisher Pumps automatically turn off, and the normal warm-up period of the Processor begins.

14. Press **TANK FILL**.

AUTO	FLOODED	TANK FILL	DISABLE	DONE/ RETURN
☐	☐	■	☐	☐

H186_8527AC

15. Press **DONE/RETURN** several times until you return to the Processor Main Menu.

16. If using RP chemicals, add 190 ml (6.5 oz) of starter solution to the drive side of the Developer Tank in the Processor.

17. After the Replenishment Pumps stop operating, check that:

    a. the levels of both the Developer and the Fixer Solutions in the Tanks are at the Tank overflow limits.

    b. there is some movement on the surface of the Developer and Fixer Solutions to indicate that the Recirculation Pump is operating.

Key Operator Instructions

Selecting Processor Options

Replenishment Mode

Automatic Replenishment Mode	Select this mode when you want the Processor to automatically adjust the Replenishment volumes for Developer and Fixer according to the Processor film usage.
Flooded Replenishment Mode	Select this mode if your site has low film usage for the Processor, i.e. less than 25 sheets of 35 x 43 cm (14 x 17 in.) film or equivalent area per 8-hour day. Check with your Kodak Service Representative to see whether the Flooded Replenishment Mode is right for the film usage of the Processor. Replenishment will be added automatically.

  • every 5 minutes, achieving a minimum replenishment of 780 ml/hr. during Processor operation, and

  • when the equivalent film area of 35 x 43 has been processed.

Tank Fill Mode	Select this mode to fill empty Processor tanks automatically. A warning error stating that the tanks are currently being filled, occurs as the tanks are filling. After the tanks are filled, the error is cleared and the Processor begins with normal operation.
Disable Replenishment	Select this feature to disable the Replenisher Pumps before doing any of the cleaning procedures. When the Pumps are disabled, a respective error message occurs. To clear the error, select either Automatic or Flooded Replenishment.
Default Setting	Automatic
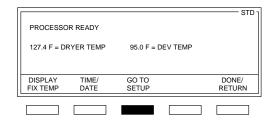
1. Press **GO TO SETUP**.

```
                                              STD

   PROCESSOR READY

   127.4 F = DRYER TEMP      95.0 F = DEV TEMP



   DISPLAY      TIME/     GO TO            DONE/
   FIX TEMP     DATE      SETUP            RETURN
```

H186_8522AC

2. Enter the 4-digit access code.

1	2	3	4	CANCEL REQUEST
■	■	■	■	☐

H186_8523AC

3. Press **MORE**.

DRYER ∧	DRYER ∨	CYCLE	MORE	DONE/ RETURN
☐	☐	☐	■	☐

H186_8524AC

4. Press **OPTIONS**.

SETUP	OPTIONS			DONE/ RETURN
☐	■	☐	☐	☐

H186_8525AC

5. Press **REPLEN MODE**.

REPLEN MODE	DAILY STARTUP	DISPLAY UNITS	MORE	DONE/ RETURN

H186_8526AC

6. Select one of the following operating modes:
- Automatic Replenishment
- Flooded
- Tank Fill
- Disable Replenishment

◻▷ **Note**

Flooded Replenishment requires Starter in the Developer Replenisher Tank if using RP chemistry.

AUTO	FLOODED	TANK FILL	DISABLE	DONE/ RETURN
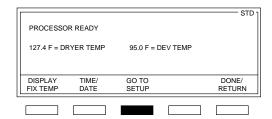
H186_8528AC

7. Press **DONE/RETURN** several times to store the entry and return to the Processor Main Menu.

Selecting the Start-Up Option

The Daily Start-Up option temporarily disables the Automatic Start-Up feature of Sleep Mode. This provides you with a convenient, easy way to leave the Processor in Sleep Mode for several days without needing to re-program the daily On and Off Timers.

1. Press **GO TO SETUP**.

```
                                                          STD
    PROCESSOR READY

    127.4 F = DRYER TEMP      95.0 F = DEV TEMP


    DISPLAY     TIME/      GO TO                  DONE/
    FIX TEMP    DATE       SETUP                  RETURN
    ┌─────┐  ┌─────┐  ████████  ┌─────┐  ┌─────┐
```

H186_8522AC

2. Enter the 4-digit access code.

```
      1          2          3          4       CANCEL
                                               REQUEST
    ████████  ████████  ████████  ████████  ┌─────┐
```

H186_8523AC

3. Press **MORE**.

```
    DRYER      DRYER
     /\         \/       CYCLE      MORE      DONE/
                                              RETURN
    ┌─────┐  ┌─────┐  ┌─────┐  ████████  ┌─────┐
```

H186_8524AC

4. Press **OPTIONS**.

REPLEN MODE	DAILY STARTUP	DISPLAY UNITS	MORE	DONE/ RETURN
▉	☐	☐	☐	☐
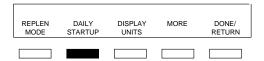
H186_8526AC

5. Press **DAILY STARTUP**.

REPLEN MODE	DAILY STARTUP	DISPLAY UNITS	MORE	DONE/ RETURN
☐	▉	☐	☐	☐

H186_8529AC

6. Press the correct key to select the day for which you wish to turn on or turn off the Automatic Start-Up feature.

TUESDAY DAILY STARTUP ON

PREV DAY	NEXT DAY	ON	OFF	DONE/ RETURN
▉	▉	☐	☐	☐

H186_8530AC
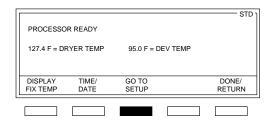
7. Press **ON** or **OFF**.

8. Press **DONE/RETURN** several times to return to the Processor Main Menu.

Selecting the Display Units for Temperature and Transport Speed

You can choose degrees Fahrenheit (°F) or degrees Celsius (°C) for temperature units, and English (in./min.) or metric (cm/min.) units for transport speed.

Default Setting: English °F and in./min.

    1. Press **GO TO SETUP**.

```
                                              STD

  PROCESSOR READY

  127.4 F = DRYER TEMP     95.0 F = DEV TEMP


  DISPLAY    TIME/      GO TO              DONE/
  FIX TEMP   DATE       SETUP              RETURN
  [      ]   [      ]   [■■■■]   [      ]  [      ]
```

H186_8522AC

    2. Enter the 4-digit access code.

```
     1        2        3        4      CANCEL
                                       REQUEST
  [■■■]    [■■■]    [■■■]    [■■■]    [      ]
```

H186_8523AC

    3. Press **MORE**.

```
  DRYER    DRYER
   /\       \/      CYCLE    MORE    DONE/
                                     RETURN
  [     ]  [     ]  [     ]  [■■■]  [     ]
```

H186_8524AC

4. Press **OPTIONS.**

```
SETUP    OPTIONS                        DONE/
                                        RETURN
```

H186_8525AC

5. Press **DISPLAY UNITS**.

```
REPLEN   DAILY    DISPLAY   MORE    DONE/
MODE     STARTUP  UNITS             RETURN
```

H186_8531AC

6. Press **ENGLISH** for °F and in./min. or **METRIC** for °C and cm/min.

```
UNITS ARE ENGLISH

ENGLISH    METRIC                      DONE/
                                       RETURN
```
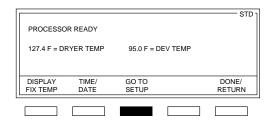
H186_8532AC

7. Press **DONE/RETURN** several times to return to the Processor Main Menu.

Selecting a Stand-By Mode

If no new films are fed the Processor enters the standby mode for approximately 15 seconds after the last film exits. There are 2 stand-by modes: the **interval** mode or the **continuous** mode. The default setting is the interval mode. In the interval mode, the Transport System and wash water turn on periodically to ensure that the Rollers are wet. In the continuous mode, the Transport System operates continuously at a reduced speed to ensure that the Rollers are wet. In both modes:

- the Dryer Blower and Heater turn on as required to maintain the Dryer temperature

- the wash water turns on every 8 1/2 minutes to clean the Rollers

- the Solution Heaters remain on as needed to maintain the setpoint temperature of the solutions

1. Press **GO TO SETUP.**

```
                                                        ┌ STD ┐
 ┌──────────────────────────────────────────────────────────┐
 │  PROCESSOR READY                                          │
 │                                                           │
 │  127.4 F = DRYER TEMP        95.0 F = DEV TEMP            │
 │                                                           │
 │  ───────────────────────────────────────────────────     │
 │  DISPLAY      TIME/       GO TO              DONE/         │
 │  FIX TEMP     DATE        SETUP              RETURN        │
 └──────────────────────────────────────────────────────────┘
   [      ]    [      ]    [■■■■■]    [      ]    [      ]
```

H186_8522AC

2. Enter the 4-digit access code.

```
 ┌──────────────────────────────────────────────────────────┐
 │   1         2         3         4        CANCEL           │
 │                                          REQUEST          │
 └──────────────────────────────────────────────────────────┘
  [■■■■■]  [■■■■■]  [■■■■■]  [■■■■■]   [      ]
```

H186_8523AC

3. Press **MORE.**

DRYER	DRYER	CYCLE	MORE	DONE/
∧	∨			RETURN

H186_8524AC

4. Press **OPTIONS.**

SETUP	OPTIONS			DONE/
				RETURN

H186_8525AC

5. Press **MORE**.

REPLEN	DAILY	DISPLAY	MORE	DONE/
MODE	STARTUP	UNITS		RETURN

H186_8533AC

6. Press **STANDBY MODE.**

STANDBY MODE	ROLLER JOG	COOL DOWN	MORE	DONE/ RETURN

H186_8534AC

7. Press **INTER MODE** or **CONT MODE.**

INTER MODE	CONT MODE			DONE/ RETURN

H186_8535AC

8. Press **DONE/RETURN** several times to return to the Processor Main Menu.

INTER	CONT			DONE/ RETURN

H186_8536AC

Selecting Sleep Mode Options

You can change the operation of the Sleep Mode by setting the Roller Jog and the Cool Down options and by setting the Auto Start-Up Option On and Off.
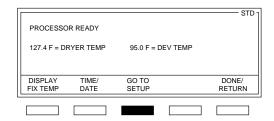
The **Roller Jog** option reduces chemical buildup on the Rack and Crossover Rollers. When selected, the Transport Motor and wash water activate periodically supplying the Crossover Troughs with water. It is recommended that you select the Roller Jog option when operating the Processor in Sleep Mode.

The **Cool Down** option reduces the condensation in the Processor Cabinet. When selected, the dryer blower operates for 3 hours to exhaust the moist, warm air from the Processor. The Cool Down option reduces the buildup of chemicals on the Rack and Crossover Rollers. It is recommended that you select the Cool Down option when operating the Processor in Sleep Mode.

Default Settings: Roller Jog - Off   Cool Down - Off

Procedure for Turning On and Off the Roller Jog Option

1. Press **GO TO SETUP**.

```
                                                    STD
    PROCESSOR READY

    127.4 F = DRYER TEMP        95.0 F = DEV TEMP


   ─────────────────────────────────────────────────
   DISPLAY      TIME/      GO TO                 DONE/
   FIX TEMP     DATE       SETUP                 RETURN
```

H186_8522AC

2. Enter the 4-digit access code.

```
   ┌──────────────────────────────────────────────┐
   │    1        2        3        4      CANCEL    │
   │                                      REQUEST   │
   └──────────────────────────────────────────────┘
```

H186_8523AC

3. Press **MORE.**

DRYER △	DRYER ▽	CYCLE	MORE	DONE/ RETURN
			■	

H186_8524AC

4. Press **OPTIONS.**

SETUP	OPTIONS			DONE/ RETURN
	■			

H186_8525AC

5. Press **MORE.**

DRYER △	DRYER ▽	CYCLE	MORE	DONE/ RETURN
			■	

H186_8524AC

6. Press **ROLLER JOG.**

STANDBY MODE	ROLLER JOG	COOL DOWN	MORE	DONE/ RETURN

H186_8537AC

7. Press **ON** to enable the Roller Jog option, or **OFF** to disable the Roller Jog option.

				DONE/ RETURN
ON	OFF			

H186_8538AC
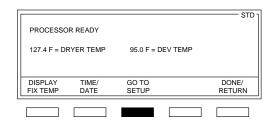
8. Press **DONE/RETURN** several times to return to the Processor Main Menu.

Turning On or Off the Cool Down Option

1. Press **GO TO SETUP**.

```
                                                    STD

   PROCESSOR READY

   127.4 F = DRYER TEMP        95.0 F = DEV TEMP



   DISPLAY      TIME/      GO TO            DONE/
   FIX TEMP     DATE       SETUP            RETURN
```

H186_8522AC

2. Enter the 4-digit access code.

1	2	3	4	CANCEL REQUEST

H186_8523AC

3. Press **MORE.**

DRYER △	DRYER ▽	CYCLE	MORE	DONE/ RETURN

H186_8524AC

4. Press **OPTIONS.**

SETUP	OPTIONS		DONE/ RETURN

H186_8525AC

5. Press **MORE**.

REPLEN MODE	DAILY STARTUP	DISPLAY UNITS	MORE	DONE/ RETURN

H186_8533AC

6. Press **COOL DOWN.**

STANDBY MODE	ROLLER JOG	COOL DOWN	MORE	DONE/ RETURN

H186_8539AC

7. Press **ON** to enable the Cool Down option, or **OFF** to disable the Cool Down option.

ON	OFF			DONE/ RETURN

H186_8538AC

8. Press **DONE/RETURN** several times to return to the Processor Main Menu.

Selecting Processor Cycle K/RA
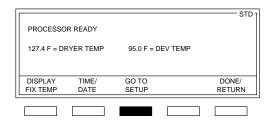
Do the following to change the cycle from RP to RA.

✳ **Important**

You must use RA chemicals to process films when using the K/RA cycle.

1. Press **GO TO SETUP**.

```
                                               STD ┐
  PROCESSOR READY

  127.4 F = DRYER TEMP      95.0 F = DEV TEMP


  DISPLAY      TIME/      GO TO            DONE/
  FIX TEMP     DATE       SETUP            RETURN
```
☐ ☐ ■ ☐ ☐

H186_8522AC

2. Enter the 4-digit access code.

```
    1          2          3          4      CANCEL
                                            REQUEST
```
■ ■ ■ ■ ☐

H186_8523AC

3. Press **CYCLE.**

```
    ∧          ∨       CYCLE      MORE    DONE/
                                          RETURN
```
☐ ☐ ■ ☐ ☐

H186_8540AC

4. Select the required cycle.

RAPID CYCLE	STD CYCLE	K/RA CYCLE		DONE/ RETURN
⬜	⬜	⬜	⬜	⬜
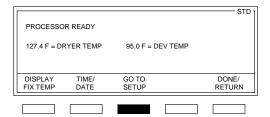
H186_8541AC

5. Press **DONE/RETURN** to store the entry and to return to the Processor Main Menu. See "Cycle Information" for the Processor on Page 4–3.

Selecting the K/RA Cycle Setpoint Defaults

The Processor has 3 possible default cycle options:

- US (default setting)

- Europe

- Japan

1. Press **GO TO SETUP**.

```
                                                  STD

    PROCESSOR READY

    127.4 F = DRYER TEMP        95.0 F = DEV TEMP



    DISPLAY      TIME/       GO TO              DONE/
    FIX TEMP     DATE        SETUP              RETURN

    [      ]    [      ]    [██████]   [      ]  [      ]
```

H186_8522AC

2. Enter the 4-digit access code.

```
      1          2          3          4       CANCEL
                                               REQUEST

   [██████]   [██████]   [██████]   [██████]  [      ]
```

H186_8523AC

3. Press **MORE**.

```
   DRYER      DRYER
    /\         \/       CYCLE       MORE     DONE/
                                             RETURN

   [      ]   [      ]   [      ]   [██████]  [      ]
```

H186_8524AC

4. Press **OPTIONS.**

SETUP	OPTIONS			DONE/ RETURN
☐	■	☐	☐	☐

H186_8525AC

5. Press **MORE**.

REPLEN MODE	DAILY STARTUP	DISPLAY UNITS	MORE	DONE/ RETURN
☐	☐	☐	■	☐

H186_8533AC

6. Press **MORE**.

STANDBY MODE	ROLLER JOG	COOL DOWN	MORE	DONE/ RETURN
☐	☐	☐	■	☐
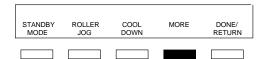
H186_8542AC

7. Press **CYCLE DEFAULT.**

```
CYCLE                          DONE/
DEFAULT                        RETURN
```

H186_8543AC

8. Press the appropriate key.

```
                               DONE/
U.S.     EUROPE    JAPAN       RETURN
```

H186_8544AC

9. Press **DONE/RETURN** several times to store the entry and to return to the
Processor Main Menu.
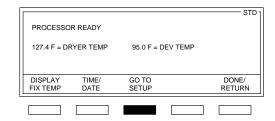
Setting Up the Processor

Developer and Fixer Setpoint Temperatures

The Developer and Fixer temperature setpoints can be modified and stored for future use. Setpoints that were preset at the factory can always be restored by pressing the **DEFAULT SETTING** in Step 9 on 5–45.

1. Press **GO TO SETUP**.

```
                                                          STD

  PROCESSOR READY

  127.4 F = DRYER TEMP          95.0 F = DEV TEMP



  DISPLAY      TIME/        GO TO                  DONE/
  FIX TEMP     DATE         SETUP                  RETURN
```

H186_8522AC

2. Enter the 4-digit access code.

```
      1          2          3          4       CANCEL
                                               REQUEST
```

H186_8523AC

3. Press **MORE**.

```
  DRYER       DRYER
   /\          \/        CYCLE      MORE      DONE/
                                              RETURN
```

H186_8524AC

4. Press **SETUP.**

```
┌────────────────────────────────────────────────┐
│                                                 │
│  SETUP    OPTIONS                     DONE/      │
│                                       RETURN     │
└────────────────────────────────────────────────┘
   ■■■■    ▭      ▭       ▭       ▭
```

H186_8545AC

5. Press **PROCESS.**

```
┌────────────────────────────────────────────────┐
│                                                 │
│  PROCESS   CLOCK    AUTO      PUMP     DONE/     │
│                     STARTUP   CALIB    RETURN    │
└────────────────────────────────────────────────┘
   ■■■■     ▭       ▭        ▭       ▭
```

H186_8546AC

6. Press the key for the current film processing cycle.

```
┌────────────────────────────────────────────────┐
│                                                 │
│  RAPID     STD      K/RA               DONE/     │
│  CYCLE     CYCLE    CYCLE              RETURN    │
└────────────────────────────────────────────────┘
    ▭       ▭        ▭        ▭       ▭
```

H186_8541AC

7. Press **TEMP.**

TEMP	REPLEN VOLUME	SPEED		DONE/ RETURN
▮	▭	▭	▭	▭
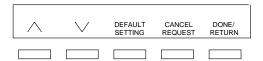
H186_8547AC

8. Press **DEV TEMP** to change the developer setpoint temperature, or **FIX TEMP** to change the fixer setpoint temperature.

DEV TEMP	FIX TEMP			DONE/ RETURN
▭	▭	▭	▭	▭

H186_8548AC

9. To change the temperature setpoint, press the:

    a. Δ to increase

    b. ∇ to decrease

    c. DEFAULT SETTING to return to the factory setpoint

    d. CANCEL REQUEST to return to the last value set

$\wedge$	$\vee$	DEFAULT SETTING	CANCEL REQUEST	DONE/ RETURN
▭	▭	▭	▭	▭

H186_8551AC

10. Do Steps 8 and 9 for the other solution.

11. Press **DONE/RETURN** several times to store the entry, and to return to the Processor Main Menu.

▷ **Note**

The temperature setpoint for the fixer is a minimum only; the temperature may rise above this setpoint.

Replenishment Volume

Replenishment volume changes are stored for the cycle until new changes are made. Replenishment volume is dependent on the replenishment mode: Automatic or Flooded.

In the **Automatic Replenishment** mode, replenishment solutions are added when an area of film equivalent to approximately 1500 cm^2 (240 in.^{2}) has been processed, for example, one 35 x 43 cm (14 x 17 in.) sheet of film.

As film usage for the Processor decreases, the volumes of developer and fixer necessary for correct replenishment increase.

Film Usage	Films/ 1/2 hour	(Auto) Replenishment Volume	
		Developer (/sheet)	
Low	1 - 2	92	113
Medium	3 - 4	73	95
High	5 (or more)	55*	80*

*default value

Enter the volume for the Developer and Fixer Replenishment on the keypad for high film usage.

The Microprocessor automatically calculates the replenishment volumes for low and medium film usage.

In the **Flooded Replenishment** mode, default developer and fixer replenishment volumes are:
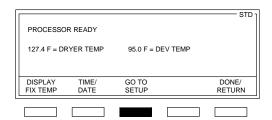
- 65 ml every 5 minutes and
- 65 ml for each 1500 cm^2 (240 in.^{2}) of film

▷ **Note**

Before changing the replenishment volumes, do a replenishment calibration.

To change the replenishment volumes from the factory default setting:

1. Press **GO TO SETUP**.

```
                                                    STD
     PROCESSOR READY

     127.4 F = DRYER TEMP        95.0 F = DEV TEMP



     DISPLAY      TIME/     GO TO              DONE/
     FIX TEMP     DATE      SETUP              RETURN
```

H186_8522AC

2. Enter the 4-digit access code.

1	2	3	4	CANCEL REQUEST

H186_8523AC

3. Press **MORE**.

DRYER ∧	DRYER ∨	CYCLE	MORE	DONE/ RETURN

H186_8524AC

4. Press **SETUP.**

SETUP	OPTIONS			DONE/ RETURN

H186_8545AC

5. Press **PROCESS**.

PROCESS	CLOCK	AUTO STARTUP	PUMP CALIB	DONE/ RETURN
■	▭	▭	▭	▭

H186_8546AC

6. Press the **current** operating cycle.

RAPID CYCLE	STD CYCLE	K/RA CYCLE		DONE/ RETURN
▭	▭	▭	▭	▭

H186_8541AC

7. Press **REPLEN VOLUME.**

TEMP	REPLEN VOLUME	SPEED		DONE/ RETURN
▭	■	▭	▭	▭

H186_8549AC

8. Press **DEV REP VOLUME** to change the Developer Replenishment volume, or **FIX REP VOLUME** to change the Fixer Replenishment volume.

```
┌─────────────────────────────────────────────────┐
│ DEV REP     FIX REP                      DONE/   │
│ VOLUME      VOLUME                       RETURN  │
│                                                  │
│  ▭    ▭    ▭    ▭    ▭                            │
└─────────────────────────────────────────────────┘
```

H186_8550AC

9. To change the replenishment volume press:

    a. Δ to increase

    b. ∇ to decrease

    c. **DEFAULT SETTING** to return to the factory setpoint

    d. **CANCEL REQUEST** to return to the last value set

```
┌─────────────────────────────────────────────────┐
│                  DEFAULT   CANCEL    DONE/       │
│   ∧      ∨        SETTING   REQUEST   RETURN      │
│                                                  │
│  ▭    ▭    ▭    ▭    ▭                            │
└─────────────────────────────────────────────────┘
```

H186_8551AC

10. Press **DONE/RETURN** several times to store the entry, and to return to the Processor Main Menu.

11. Do Steps 8 - 10 for the other solution.

Verifying the Replenishment Rates
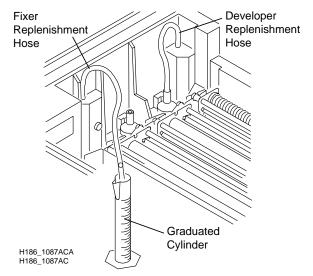
⚠️ **Warning**
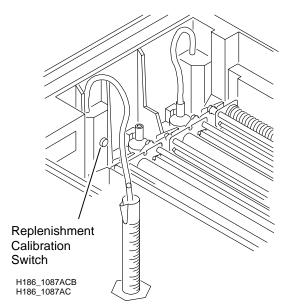
.

• Gloves and protective eye wear must be worn when working with the processor chemistry, especially when mixing the chemistry.

• See the "Chemical Hazards" warning on Page 1–9.

1. Gently pull out the Processor from the Multiloader as described on Page 4–9, and remove the Wet Section Cover.

2. Insert the end of the Developer, or Fixer Replenishment Hose into a Graduated Cylinder.

Fixer Replenishment Hose

Developer Replenishment Hose

Graduated Cylinder

H186_1087ACA
H186_1087AC

3. Hold the Graduated Cylinder over the Wash Section of the Processor to prevent spills from contaminating the processing solutions.

4. Press and hold the Replenishment Calibration Switch for 5 seconds. The switch is located on the side wall of the Processor Tank.

Replenishment Calibration Switch

H186_1087ACB
H186_1087AC

5. Allow the Replenishment Pumps to turn on and deliver the preset volume of replenishment solution.

6. Compare the volume of replenishment solution in the Graduated Cylinder of the replenishment volume you set in the previous procedure.

7. Install the Wet Section Cover and **carefully** push in the Processor.

⚠ **Warning**

See Step 9 on 4–11.
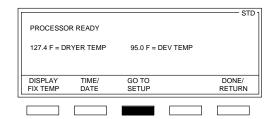
If the volumes are not within 10% of each other, do the "Calibrating the Replenishment System" procedure described on Page 5–70.

Processor Speed

The transport speed can be changed for each cycle. The new speed value is stored for that cycle.

To change the transport speed:

1. Press **GO TO SETUP**.

```
                                                    STD ┐

      PROCESSOR READY

      127.4 F = DRYER TEMP        95.0 F = DEV TEMP


      DISPLAY      TIME/      GO TO                  DONE/
      FIX TEMP     DATE       SETUP                  RETURN
```

H186_8522AC

2. Enter the 4-digit access code.

```
        1          2          3          4        CANCEL
                                                  REQUEST
```

H186_8523AC

3. Press **MORE**.

```
      DRYER      DRYER
       /\         \/        CYCLE      MORE       DONE/
                                                  RETURN
```

H186_8524AC

4. Press **SETUP**.

```
┌─────────────────────────────────────────────┐
│                                             │
│  SETUP    OPTIONS                   DONE/    │
│                                     RETURN   │
│                                             │
└─────────────────────────────────────────────┘
  ███████   ┌─────┐  ┌─────┐  ┌─────┐  ┌─────┐
```

H186_8545AC

5. Press **PROCESS**.

```
┌─────────────────────────────────────────────┐
│                                             │
│  PROCESS  CLOCK    AUTO     PUMP    DONE/    │
│                    STARTUP  CALIB   RETURN   │
│                                             │
└─────────────────────────────────────────────┘
  ███████   ┌─────┐  ┌─────┐  ┌─────┐  ┌─────┐
```

H186_8546AC

6. Select the **current** operating cycle.

```
┌─────────────────────────────────────────────┐
│                                             │
│  RAPID    STD      K/RA             DONE/    │
│  CYCLE    CYCLE    CYCLE            RETURN   │
│                                             │
└─────────────────────────────────────────────┘
  ┌─────┐   ┌─────┐  ┌─────┐  ┌─────┐  ┌─────┐
```

H186_8541AC

7. Press **SPEED**.

TEMP	REPLEN VOLUME	SPEED		DONE/ RETURN
☐	☐	■	☐	☐
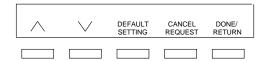
H186_8552AC

8. To change the transport speed press:

    a. Δ to increase the transport speed

    b. ∇ to decrease the transport speed

    c. **DEFAULT SETTING** to return to the factory setpoint speed.

    d. **CANCEL REQUEST** to return to the last value set.

∧	∨	DEFAULT SETTING	CANCEL REQUEST	DONE/ RETURN
☐	☐	☐	☐	☐

H186_8551AC

9. Press **DONE/RETURN** several times to store the entry, and to return to the Processor Main Menu.

Setting the Time and Date

Set the clock of the Processor to take advantage of the following features:

- Auto Start-Up and Shut-Down
- Time and Date Stamping of Error Messages

When setting the time and date, you may choose from several different formats:

Time Formats	• 12 Hour
	• 24 Hour
Date Formats	• M-D-Y
(M=Month, D=Day, and Y=Year)	• D-M-Y
	• Y-M-D
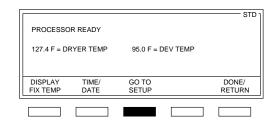
1. Press **GO TO SETUP**.

```
                                                    ┌ STD
   PROCESSOR READY

   127.4 F = DRYER TEMP        95.0 F = DEV TEMP


   DISPLAY     TIME/      GO TO                DONE/
   FIX TEMP    DATE       SETUP                RETURN
```

H186_8522AC

2. Enter the 4-digit access code.

```
      1          2          3          4       CANCEL
                                               REQUEST
```

H186_8523AC

3. Press **MORE**.

```
   DRYER      DRYER
    /\         \/        CYCLE       MORE      DONE/
                                               RETURN
```

H186_8524AC

4. Press **SETUP**.

SETUP	OPTIONS			DONE/ RETURN
■	☐	☐	☐	☐

H186_8545AC

5. Press **CLOCK**.

PROCESS	CLOCK	AUTO STARTUP	PUMP CALIB	DONE/ RETURN
☐	■	☐	☐	☐

H186_8553AC

6. Press **TIME FORMAT**.

SET TIME	SET DATE	TIME FORMAT	DATE FORMAT	DONE/ RETURN
☐	☐	■	☐	☐

H186_8554AC

7. Select **FORMAT**.

```
┌─────────────────────────────────────────────────────┐
│                                                       │
│  12 HOUR   24 HOUR                          DONE/     │
│  FORMAT    FORMAT                           RETURN    │
│                                                       │
└─────────────────────────────────────────────────────┘
   ┌─────┐  ┌─────┐  ┌─────┐  ┌─────┐  ┌─────┐
   └─────┘  └─────┘  └─────┘  └─────┘  └─────┘
```

H186_8555AC

8. Press **DONE/RETURN** once to return to the format options.

9. Press **DATE FORMAT**.

```
┌─────────────────────────────────────────────────────┐
│                                                       │
│   SET        SET       TIME       DATE      DONE/     │
│   TIME       DATE     FORMAT     FORMAT     RETURN    │
│                                                       │
└─────────────────────────────────────────────────────┘
   ┌─────┐  ┌─────┐  ┌─────┐  ┌█████┐  ┌─────┐
   └─────┘  └─────┘  └─────┘  └█████┘  └─────┘
```

H186_8556AC

10. Select the desired **FORMAT**.

```
┌─────────────────────────────────────────────────────┐
│                                                       │
│  M-D-Y      D-M-Y      Y-M-D                 DONE/    │
│  FORMAT     FORMAT     FORMAT                RETURN   │
│                                                       │
└─────────────────────────────────────────────────────┘
   ┌─────┐  ┌─────┐  ┌─────┐  ┌─────┐  ┌─────┐
   └─────┘  └─────┘  └─────┘  └─────┘  └─────┘
```

H186_8557AC

11. Press **DONE/RETURN** once to return to the set time and set date options.

12. Press **SET TIME.**

SET
TIME   SET
DATE   TIME
FORMAT   DATE
FORMAT   DONE/
RETURN

H186_8558AC

13. Use the up and down arrow keys to set the time in hours and minutes.

HOUR   HOUR   MINUTE   MINUTE   DONE/
RETURN

H186_8559AC

14. Press **DONE/RETURN** once to return to the set date option.

15. Press **SET DATE**.

SET
TIME   SET
DATE   TIME
FORMAT   DATE
FORMAT   DONE/
RETURN

H186_8560AC

16. Press **SET DATE**.

```
┌──────────────────────────────────────────────┐
│  SET       SET                      DONE/      │
│  DATE      YEAR                     RETURN     │
│                                                │
└──────────────────────────────────────────────┘
 �eigen  ▢    ▢     ▢      ▢
```

H186_8561AC

17. Use the up and down arrow keys to set the date.

```
┌──────────────────────────────────────────────┐
│   ∧        ∨        ∧        ∨       DONE/      │
│ MONTH    MONTH     DAY      DAY     RETURN     │
└──────────────────────────────────────────────┘
  ▢         ▢        ▢        ▢       ▢
```

H186_8562AC

18. Press **DONE/RETURN** once to return to the set year option.

19. Press **SET YEAR**.

```
┌──────────────────────────────────────────────┐
│  SET       SET                      DONE/      │
│  DATE      YEAR                     RETURN     │
│                                                │
└──────────────────────────────────────────────┘
  ▢        ▉     ▢      ▢      ▢
```

H186_8563AC

20. Use the up and down arrow keys to set the year.

H186_8564AC

21. Press **DONE/RETURN** to return to the Processor Main Menu.

Automatic On and Off Timers

You can program 2 On and Off Times for the Processor each day. You can specify a start time for the Processor to automatically turn on so that the processing solutions and the Dryer will have reached their setpoint temperatures before you arrive at the work site. The Processor can store up to 2 "Start Times" and 2 "Off Times" for each day of the week to coincide with changing shifts or with weekend schedules.

Example of use:

- If you would like the Processor to be warmed up and ready to accept films by the time you arrive at work in the morning, you could set Timer 1 to turn on the Processor at 6:00 a.m.

- If you operate during 2 distinct shifts and there is a large lapse in time between the 2 shifts, you could set Timer 1 to turn off the Processor at the end of the first shift. You could then set Timer 2 to turn on the Processor again an hour before the second shift starts for the afternoon.

- You could set Timer 2 to turn off the Processor for the night at the end of the second shift.

▷ **Note**
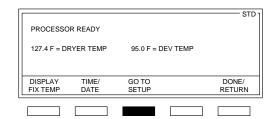
Do not set the On and Off Timers within 15 minutes of each other. To ensure the correct operation of the Processor, the Processor must remain on for at least 15 minutes before the Automatic Off Timer turns it off. Likewise, the Processor must remain off for at least 15 minutes before the Automatic On Timer turns it on.

Setting Timer 1 Initially

Before proceeding with the steps described below, be sure that you have completed the procedure for setting the time and date starting on Page 5–54.

   1. Press **GO TO SETUP**.

```
                                                        STD ⌐

      PROCESSOR READY

      127.4 F = DRYER TEMP        95.0 F = DEV TEMP


      DISPLAY      TIME/       GO TO                    DONE/
      FIX TEMP     DATE        SETUP                    RETURN

      [      ]    [      ]    [■■■■■]    [      ]    [      ]
```

H186_8522AC

   2. Enter the 4-digit access code.

```
            1           2           3           4       CANCEL
                                                        REQUEST

        [■■■■]     [■■■■]     [■■■■]     [■■■■]     [      ]
```

H186_8523AC

   3. Press **MORE**.

```
      DRYER        DRYER
       /\           \/        CYCLE       MORE        DONE/
                                                      RETURN

      [      ]    [      ]    [      ]    [■■■■■]    [      ]
```

H186_8524AC

4. Press **SETUP**.

```
┌─────────────────────────────────────────────┐
│                                             │
│  SETUP    OPTIONS                    DONE/   │
│                                      RETURN  │
└─────────────────────────────────────────────┘
  ████████   ┌─────┐   ┌─────┐   ┌─────┐   ┌─────┐
```

H186_8545AC

5. Press **AUTO STARTUP**.

```
┌─────────────────────────────────────────────┐
│                                             │
│  PROCESS   CLOCK    AUTO     PUMP    DONE/   │
│                    STARTUP   CALIB   RETURN  │
└─────────────────────────────────────────────┘
  ┌─────┐   ┌─────┐   ████████   ┌─────┐   ┌─────┐
```

H186_8565AC
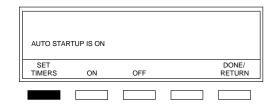
6. Press **ON**.

```
┌─────────────────────────────────────────────┐
│                                             │
│  AUTO STARTUP IS OFF                        │
│                                             │
│                                      DONE/   │
│              ON        OFF           RETURN  │
└─────────────────────────────────────────────┘
  ┌─────┐   ████████   ┌─────┐   ┌─────┐   ┌─────┐
```

H186_8566AC

7. Press **SET TIMERS**.

```
┌─────────────────────────────────┐
│                                 │
│                                 │
│  AUTO STARTUP IS ON             │
│                                 │
│  SET                    DONE/   │
│  TIMERS    ON    OFF    RETURN  │
└─────────────────────────────────┘
  ███████  ┌────┐ ┌────┐ ┌────┐ ┌────┐
           └────┘ └────┘ └────┘ └────┘
```
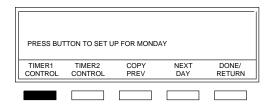
H186_8567AC
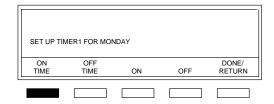
Setting the On Time:

8. Press **TIMER1 CONTROL**.

```
┌─────────────────────────────────┐
│                                 │
│                                 │
│  PRESS BUTTON TO SET UP FOR MONDAY │
│                                 │
│  TIMER1   TIMER2   COPY   NEXT   DONE/   │
│  CONTROL  CONTROL  PREV   DAY    RETURN  │
└─────────────────────────────────┘
  ███████  ┌────┐ ┌────┐ ┌────┐ ┌────┐
           └────┘ └────┘ └────┘ └────┘
```
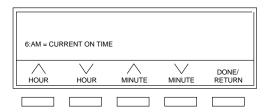
H186_8568AC

9. Press **ON TIME**.

```
┌─────────────────────────────────┐
│                                 │
│                                 │
│  SET UP TIMER1 FOR MONDAY       │
│                                 │
│  ON      OFF                DONE/   │
│  TIME    TIME    ON    OFF   RETURN  │
└─────────────────────────────────┘
  ███████  ┌────┐ ┌────┐ ┌────┐ ┌────┐
           └────┘ └────┘ └────┘ └────┘
```
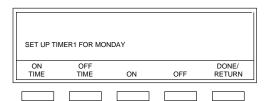
H186_8569AC

10. Use the up and down arrow keys to select the hour and minute the Processor should turn on.

```
┌─────────────────────────────────────────┐
│                                          │
│                                          │
│  6:AM = CURRENT ON TIME                  │
│ ─────────────────────────────────────── │
│   ∧        ∨        ∧        ∨    DONE/   │
│  HOUR     HOUR    MINUTE   MINUTE RETURN  │
└─────────────────────────────────────────┘
  ▭        ▭        ▭        ▭       ▭
```

H186_8570AC

11. Press **DONE/RETURN** to return to the menu options shown below.

```
┌─────────────────────────────────────────┐
│                                          │
│                                          │
│  SET UP TIMER1 FOR MONDAY                │
│ ─────────────────────────────────────── │
│   ON       OFF                    DONE/   │
│  TIME     TIME     ON      OFF   RETURN   │
└─────────────────────────────────────────┘
  ▭        ▭        ▭        ▭       ▭
```
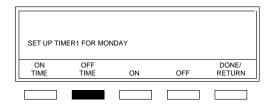
H186_8571AC

Setting the Off Time

▷ **Note**

Any time the screen shown below appears on the Display Panel, you can press **OFF** to erase the last programmed on and off times for Timer 1 and Timer 2.
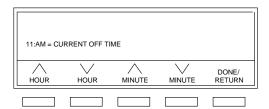
12. Press **OFF TIME**.

```
┌─────────────────────────────────────────┐
│                                          │
│                                          │
│  SET UP TIMER1 FOR MONDAY                │
│ ─────────────────────────────────────── │
│   ON       OFF                    DONE/   │
│  TIME     TIME     ON      OFF   RETURN   │
└─────────────────────────────────────────┘
  ▭        ■        ▭        ▭       ▭
```

H186_8572AC

13. Use the up and down arrow keys to select the hour and minute the Processor should turn off.

```
┌──────────────────────────────────────────┐
│                                          │
│                                          │
│  11:AM = CURRENT OFF TIME                │
│                                          │
│    ∧        ∨        ∧        ∨    DONE/  │
│   HOUR     HOUR    MINUTE   MINUTE RETURN │
└──────────────────────────────────────────┘
   ▭         ▭        ▭        ▭       ▭
```

H186_8573AC

14. Press **DONE/RETURN** several times to return to the menu shown below.

```
┌──────────────────────────────────────────┐
│                                          │
│                                          │
│   PRESS BUTTON TO SET UP FOR MONDAY      │
│                                          │
│  TIMER1    TIMER2    COPY     NEXT  DONE/ │
│ CONTROL   CONTROL    PREV     DAY  RETURN │
└──────────────────────────────────────────┘
   ▭         ▭         ▭        ▭      ▭
```

H186_8574AC

Procedure for Setting Timer 2 Initially

1. Press **Timer 2 CONTROL**.

```
┌──────────────────────────────────────────┐
│                                          │
│                                          │
│   PRESS BUTTON TO SET UP FOR MONDAY      │
│                                          │
│  TIMER1    TIMER2    COPY     NEXT  DONE/ │
│ CONTROL   CONTROL    PREV     DAY  RETURN │
└──────────────────────────────────────────┘
   ▭         ■         ▭        ▭      ▭
```
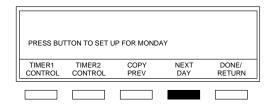
H186_8575AC

2. Repeat Steps 9 through 14 starting on Page 5–63 to set the On and Off Times for Timer 2. Then set the On and Off Timers for the remaining days of the week.

Setting the On and Off Timers for the Remaining Days of the Week

If the hours that you would like to operate the Processor on the other days of the week are the same hours as those you set for Monday, follow Steps 1 - 3 below. If you do not want to repeat Monday's on and off times for the other days of the week, follow Steps 1- 10 on Page 5–68.

Copying On and Off Timer Settings

1. Press **NEXT DAY**.

```
┌──────────────────────────────────────────────┐
│                                                │
│                                                │
│   PRESS BUTTON TO SET UP FOR MONDAY            │
│ ──────────────────────────────────────────────│
│  TIMER1    TIMER2    COPY     NEXT     DONE/    │
│  CONTROL   CONTROL   PREV     DAY      RETURN   │
└──────────────────────────────────────────────┘
  ┌────┐   ┌────┐   ┌────┐   ████   ┌────┐
```

H186_8576AC

2. Press **COPY PREV**.

```
┌──────────────────────────────────────────────┐
│                                                │
│                                                │
│   PRESS BUTTON TO SET UP FOR TUESDAY           │
│ ──────────────────────────────────────────────│
│  TIMER1    TIMER2    COPY     NEXT     DONE/    │
│  CONTROL   CONTROL   PREV     DAY      RETURN   │
└──────────────────────────────────────────────┘
  ┌────┐   ┌────┐   ████   ┌────┐   ┌────┐
```

H186_8577AC
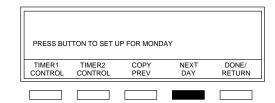
3. Repeat the entire process to set the Automatic Timers for the remaining days of the week.

Setting Different On and Off Times for the Remaining Days

If you want to select different on and off times for Timer 1 and Timer 2 than those you set for Monday, do the following steps.

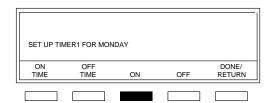**1.** Press **NEXT DAY** to advance the display to show Tuesday.

```
PRESS BUTTON TO SET UP FOR MONDAY

TIMER1     TIMER2     COPY      NEXT      DONE/
CONTROL    CONTROL    PREV      DAY       RETURN
```

H186_8576AC

2. Press **Timer 1 CONTROL**.

```
PRESS BUTTON TO SET UP FOR TUESDAY

TIMER1     TIMER2     COPY      NEXT      DONE/
CONTROL    CONTROL    PREV      DAY       RETURN
```
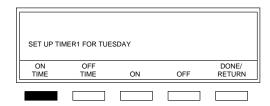
H186_8578AC

3. Press **ON** to enable Timer 1.

```
SET UP TIMER1 FOR MONDAY

ON         OFF                            DONE/
TIME       TIME       ON        OFF       RETURN
```
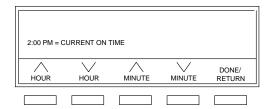
H186_8579AC

4. Press **ON TIME**.

```
┌─────────────────────────────────────────┐
│                                         │
│                                         │
│  SET UP TIMER1 FOR TUESDAY              │
│  ┌──────┬──────┬──────┬──────┬────────┐ │
│  │ ON   │ OFF  │      │      │ DONE/  │ │
│  │ TIME │ TIME │ ON   │ OFF  │ RETURN │ │
│  └──────┴──────┴──────┴──────┴────────┘ │
└─────────────────────────────────────────┘
  ▇▇▇▇▇   ▭▭▭▭   ▭▭▭▭   ▭▭▭▭   ▭▭▭▭
```
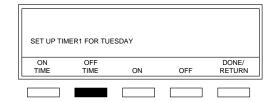
H186_8580AC

5. Use the up and down arrow keys to select the hour and minute the Processor should turn on.

```
┌─────────────────────────────────────────┐
│                                         │
│                                         │
│  2:00 PM = CURRENT ON TIME              │
│  ┌──────┬──────┬──────┬──────┬────────┐ │
│  │  ∧   │  ∨   │  ∧   │  ∨   │ DONE/  │ │
│  │ HOUR │ HOUR │MINUTE│MINUTE│ RETURN │ │
│  └──────┴──────┴──────┴──────┴────────┘ │
└─────────────────────────────────────────┘
  ▭▭▭▭   ▭▭▭▭   ▭▭▭▭   ▭▭▭▭   ▭▭▭▭
```

H186_8581AC
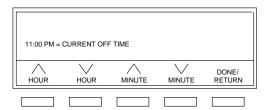
6. Press **DONE/RETURN** until you return to the menu options shown below. Then press **OFF TIME**.

```
┌─────────────────────────────────────────┐
│                                         │
│                                         │
│  SET UP TIMER1 FOR TUESDAY              │
│  ┌──────┬──────┬──────┬──────┬────────┐ │
│  │ ON   │ OFF  │      │      │ DONE/  │ │
│  │ TIME │ TIME │ ON   │ OFF  │ RETURN │ │
│  └──────┴──────┴──────┴──────┴────────┘ │
└─────────────────────────────────────────┘
  ▭▭▭▭   ▇▇▇▇▇   ▭▭▭▭   ▭▭▭▭   ▭▭▭▭
```

H186_8582AC
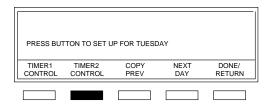
7. Use the up and down arrow keys to select the hour and minute when the Processor should turn off.

```
┌──────────────────────────────────────────────┐
│                                                │
│                                                │
│                                                │
│  11:00 PM = CURRENT OFF TIME                   │
│  ────────  ────────  ────────  ────────        │
│    ╱╲        ╲╱        ╱╲        ╲╱     DONE/   │
│   HOUR      HOUR     MINUTE    MINUTE   RETURN  │
└──────────────────────────────────────────────┘
   ▭        ▭        ▭        ▭        ▭
```

H186_8583AC

8. Press **DONE/RETURN** twice to return to the menu options displayed below. Then press **Timer 2 CONTROL**.

```
┌──────────────────────────────────────────────┐
│                                                │
│                                                │
│   PRESS BUTTON TO SET UP FOR TUESDAY           │
│  ──────────────────────────────────────────    │
│   TIMER1    TIMER2    COPY     NEXT    DONE/    │
│   CONTROL   CONTROL   PREV     DAY     RETURN   │
└──────────────────────────────────────────────┘
   ▭        ■        ▭        ▭        ▭
```

H186_8584AC

9. Repeat Steps 4 through 8 to set the on and off time settings for Timer 2.

10. Repeat the entire process to set the Automatic Timers for the remaining days of the week.

Calibrating the Replenishment System
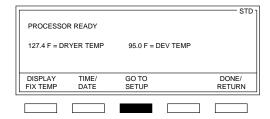
⚠ Important

Calibrate the Replenishment System every 3 months, or whenever you add new chemicals to the Processor.

Calibrate the Replenishment System for all process cycles in 1 operation that determines the actual rate of solution flow through the Replenisher Pumps. The operator will measure the volume of solution pumped during a set period of time, then use the Display Panel to enter the measurement into the Microprocessor. The Microprocessor computes the rate of solution flow through the Pump, then adjusts the period of time that the Pump must operate to match the Replenishment volume set by the operator.

▷ Note

The volume actually measured during this procedure is **not** the volume delivered for a 35 x 43 cm sheet of film.

1. Press **GO TO SETUP**.

```
                                              STD
   PROCESSOR READY

   127.4 F = DRYER TEMP      95.0 F = DEV TEMP


   DISPLAY      TIME/      GO TO              DONE/
   FIX TEMP     DATE       SETUP              RETURN

   [      ]   [      ]   [■■■■■]   [      ]   [      ]
```

H186_8522AC

2. Enter the 4-digit access code.

```
   [    1         2         3         4      CANCEL  ]
                                            REQUEST

   [■■■■]   [■■■■]   [■■■■]   [■■■■]   [      ]
```

H186_8523AC

3. Press **MORE**.

DRYER ∧	DRYER ∨	CYCLE	MORE	DONE/ RETURN
☐	☐	☐	■	☐

H186_8524AC

4. Press **SETUP**.

SETUP	OPTIONS			DONE/ RETURN
■	☐	☐	☐	☐

H186_8545AC

5. Press **PUMP CALIB**.

PROCESS	CLOCK	AUTO STARTUP	PUMP CALIB	DONE/ RETURN
☐	☐	☐	■	☐

H186_8585AC

6. Press **DEV CAL** to calibrate the Developer Pump, or **FIX CAL** to calibrate the Fixer Pump.
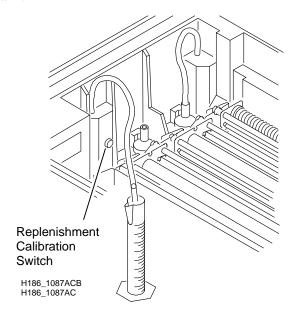
```
┌─────────────────────────────────────────────┐
│                                             │
│  DEV        FIX                     DONE/    │
│  CAL        CAL                     RETURN   │
│                                             │
└─────────────────────────────────────────────┘
   ████████  ████████   ┌────┐  ┌────┐  ┌────┐
```

H186_8586AC

⚠ **Warning**

- Gloves and protective eye wear must be worn when working with the processor chemistry, especially when mixing the chemistry. See "Chemical Hazards" on Page 1–9.

- If the processor chemicals get in the eyes, flush them thoroughly with large amounts of water. If irritation persists, check with a doctor.

- Replenishment solutions are pumped quickly and may splash.

7. Carefully pull out the Processor until it locks into place.

8. Remove the Fixer Replenishment, or the Developer Replenishment hose and place it into the Graduated Cylinder.

9. Hold the Graduated Cylinder over the Wash Section of the Processor so that spills will not contaminate the processing solutions.

Fixer Replenishment Hose

Developer Replenishment Hose

Graduated Cylinder

H186_1087ACA
H186_1087AC

10. Press and release the Replenishment Calibration Switch on the side wall of the Processor Tank.

Replenishment
Calibration
Switch

H186_1087ACB
H186_1087AC

11. Measure and record the volume of replenishment delivered by the system.

12. Dispose of the solution in the Graduated Cylinder.

13. Do Steps 8 through 11 at least 2 more times.

14. Determine the average volume of replenishment delivered.

15. Install the replenishment hose into the Fixer or Developer Filter Mandrel.

16. Carefully push the Processor back into the Multiloader.

 Warning

See Step 9 on 4–11.

17. Press **UPDATE CAL VOL**.

UPDATE
CAL VOL

DONE/
RETURN

H186_8587AC

18. Press Δ or ∇ key until the volume of replenishment displayed equals the average volume determined in Step 14 on Page 5–73.

19. Press **DONE/RETURN** several times until you return to the Processor Main Menu.

```
┌─────────────────────────────────────────────┐
│                                             │
│  DEV        FIX                   DONE/     │
│  CAL        CAL                   RETURN    │
│ ████       ████      ▭         ▭        ▭   │
```

H186_8586AC

20. Repeat Steps 6 to 18 for the Developer or Fixer Replenishment.

21. Press **DONE/RETURN** several times until you return to the Processor Main Menu.
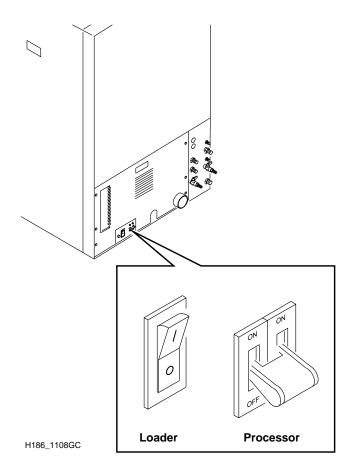
6 Troubleshooting and Error Messages

Key Operator Instructions
Problem Solving
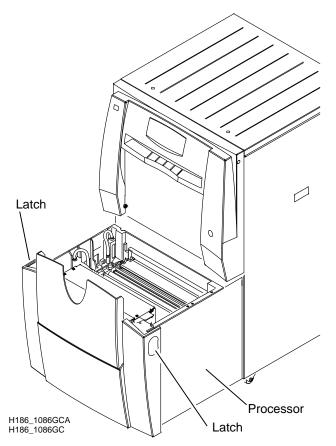
⚠️ **Warning**

- Move the Circuit Breakers (Loader and Processor) on the back of the Multiloader to the "0" position.
- Always disconnect the main power (either the mains plug, grasp the mains plug only, or move the wall-mounted main switch to the "0" position) from the Multiloader.

H186_1108GC

Loader   **Processor**

1. Release both Latches. Gently pull out the Processor to avoid splashing.

Latch

H186_1086GCA
H186_1086GC

Processor

Latch

⚠️ **Warning**

See Step 9 on 4–11.

2. Gently push the Processor back into the Multiloader until the Latches click into position.

⚠ **Warning**

The following procedures must be done by Key Operators who have been trained by Kodak.

- Always clean and rinse all described parts outside of the Multiloader.
- Always disconnect the main power (either the mains plug, grasp the mains plug only, or move the wall-mounted main switch to the "0" position) from the Multiloader.

Transport Failure	Surface Artifacts	Abnormal Film Densities	Wet Films	Low Solution Levels	Overlapping of Films	
•	•	•	•			Feed only compatible films.
•					•	Check that all Racks and Crossovers are seated correctly.
•	•					Check that the surfaces of all Rollers are clean and smooth.
•	•		•			Check that all Dryer Air Tubes are installed.
	•		•			Remove any dirt from the Dryer Rollers and Air Tubes, especially the Air Tube slot and Air Diffuser. Use a Bottle Brush and rinse with water.
	•	•	•	•		Check the settings for correct replenishment. Check the **external** tubing of the replenishment system (i.e. tubing outside of the Multiloader) for kinks.
	•					Adjust the Dryer temperature control setting to the lowest possible temperature consistent with good film drying quality.
•	•	•	•		•	Change any chemicals that were not mixed correctly, are exhausted, or are contaminated. Check that replenishment rates are correctly set. Fill the Replenishment Tanks if necessary. Mix the developer replenisher in quantities not to exceed a 2-week supply. Always use a Splash Guard and Rack Drip Tray when lifting the Racks to prevent contamination. Mix chemicals as directed.
•					•	Check that the Drain Valves are completely closed. Check that the Tanks are full.
•	•				•	Check that all Rollers, Gears, Sprockets, and idlers are engaged and rotate freely.
•	•				•	Replace defective Rack Rollers.

Transport Failure					
Surface Artifacts					
	Abnormal Film Densities				
		Wet Films			
			Low Solution Levels		
				Overlapping of Films	
•	•				If incoming wash water is dirty, clean the Wash Rack, Wash Tank, and Water Reservoir thoroughly. Have the incoming water Filter changed. Be sure that the correct water Filter is used.
	•	•	•		Check incoming water temperature. Temperature must be between 4°C (40°F) and 29°C (85°F).
•					If 10 x 10 cm films fail to transport reliably, feed the sheets of films diagonally. For DFF only.
				•	Check that solution Level Probes are clean and free from buildup. Check that all **external** replenishment lines (i.e. those who are outside of the Multiloader) are without kinks or air bubbles.
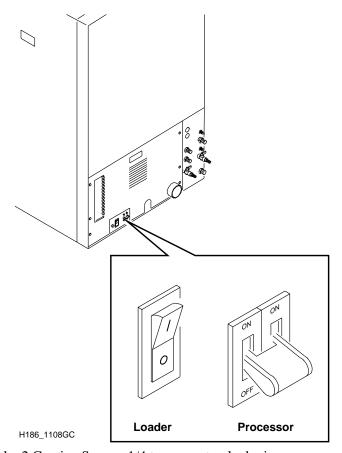
Removing a Cassette

In the event of a machine malfunction it may be necessary to remove the Cassette and Magazines manually.

⚠ **Warning**

- Move the Circuit Breakers (Loader and Processor) on the back of the Multiloader to the "0" position.

- Always disconnect the main power (either the mains plug, grasp the mains plug only, or move the wall-mounted main switch to the "0" position) from the Multiloader.
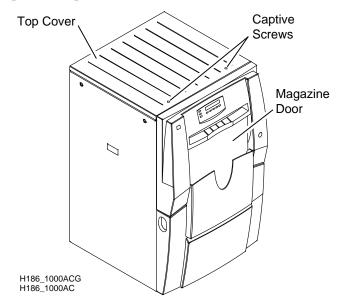

H186_1108GC

Loader   **Processor**

1. Loosen the 2 Captive Screws 1/4 turn counterclockwise.

⚠️ **Warning**

The Top Cover must engage both Cover Stays.

2. Lift and open the Top Cover.

Top Cover

Captive
Screws

Magazine
Door

H186_1000ACG
H186_1000AC
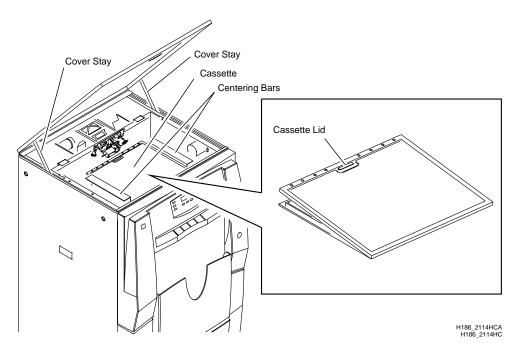
3. Press the Cassette Lid to release the Cassette.

4. Push the Centering Bars to the full width.

5. Lift and remove the Cassette.

Cover Stay

Cover Stay

Cassette

Centering Bars

Cassette Lid

H186_2114HCA
H186_2114HC

6. Push the Top Cover slightly upwards to release both Cover Stays.

7. Tighten both Captive Screws 1/4 turn clockwise.

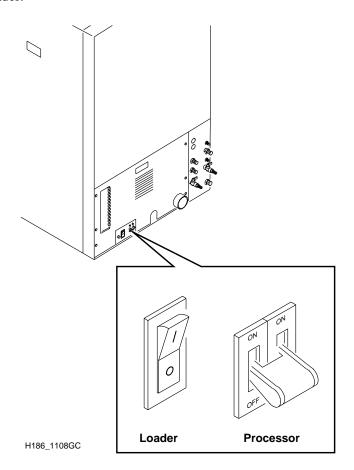**8.** Press **RESET** on the Display Panel.

Removing a Magazine

You can remove a Magazine using the Front Door Release located under the Top Cover of the Multiloader and/or the Manual Magazine Door Opener.

⚠ Warning

- Move the Circuit Breakers (Loader and Processor) on the back of the Multiloader to the "0" position.
- Always disconnect the main power (either the mains plug, grasp the mains plug only, or move the wall-mounted main switch to the "0" position) from the Multiloader.

H186_1108GC

Loader   **Processor**

✳ Important

You must push in on the Magazine Door while pulling the Front Door Release.

1. Loosen both Captive Screws 1/4 turn counterclockwise.

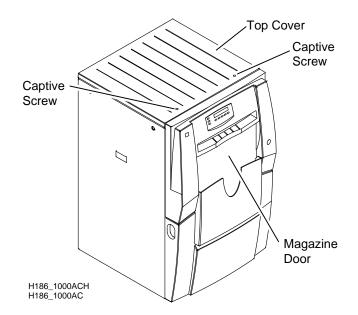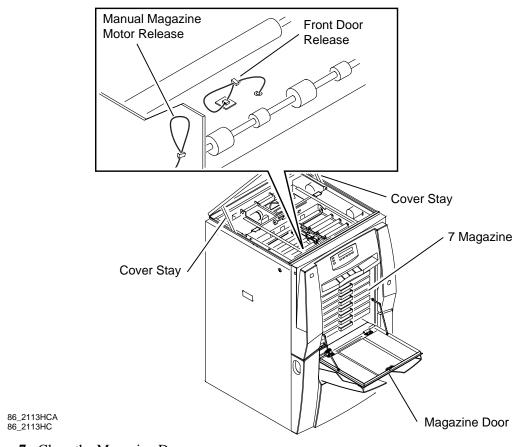### ⚠ Warning

The Top Cover must engage both Cover Stays.

2. Lift and open the Top Cover.

Top Cover

Captive
Screw

Captive
Screw

Magazine
Door

H186_1000ACH
H186_1000AC

3. Pull the Front Door Release up and push in on the Magazine Door.

4. Open the Magazine Door completely.

5. Pull and hold the Manual Magazine Motor Release and push the 7 Magazines to the back of the Multiloader.

6. Pull one of the 7 Magazines forward to remove the Magazine from the Multiloader.

Manual Magazine Motor Release

Front Door Release

Cover Stay

7 Magazine

Cover Stay

Magazine Door

86_2113HCA
86_2113HC

7. Close the Magazine Door.

8. Push the Top Cover slightly upwards to release both Cover Stays.

9. Tighten both Captive Screws 1/4 turn clockwise.

Error Messages

Message	Description
Exposed film not removed. Please check cassette in darkroom.	The Cassette may be empty and you did not choose the LOAD ONLY mode. The machine feeds the Cassette back, because a film could be sticking to the upper screen.
Cassette was not empty. Exposed film was removed.	The special function LOAD ONLY was selected, but a film was in the Cassette when it was entered. During SERIAL UNLOADING a Cassette containing a film was inserted.
Magazine for serial unloading not defined.	The magazine for SERIAL UNLOADING was not defined.
Please insert correct cassette size XX YY	The Cassette entered was incorrect for SERIAL UNLOADING.
Exposed film not removed. Please re-enter cassette.	Cassette was incorrectly inserted. If the message appears repeatedly, check the Cassette in the darkroom. If there is no film in the Cassette, have it checked by your Kodak Service Representative.
Film size/type not available.	The chosen magazine is not available or used for SERIAL UNLOADING.
Film size/type not available. magazine XX * YY	The chosen magazine was empty when Cassette was inserted. The Cassette is RETURNED (with latch open or closed, depending on how it has been set on installation), as no film was loaded.
Please check correct magazine insertion.	The magazine is probably not positioned correctly.
Please insert correct cassette size.	SERIAL UNLOADING. The Cassette was unloaded and reloaded.
Remove and check magazine.	No film was removed from the magazine or the Magazine Cover did not completely close. To correct, press **CLEAR**, the same message will appear on the screen again. You can now press the Magazine Door button and open the Magazine Door. ⬭ **Note** This is the only time you can open the Magazine Door when the red light is on. Remove the Magazines and check that the Magazine Covers are closed and latched. If the Magazine Cover is not closed, it is because a Film is caught in the Cover, and all of the films may be fogged. If necessary, reload the Magazine with unexposed film. Install the Magazines all the way into the Magazine Drawer. Close the Magazine Door and press **CLEAR**. Resume normal operation.
Please riffle films in magazine.	The films in the magazine adhere to each other, so that no single sheet of film can be removed from the magazine. In the darkroom, remove and riffle the films before reloading the magazine.
Please check cassette in darkroom.	a. If there is no film in the Cassette ask your Kodak Service Representative to check the Cassette. b. If there is a film in the Cassette, the Cassette is likely to have contained two films and one was removed in the Multiloader.

Message	Description
Unexposed film lost.	Cassette closing problem. Cassette returned with the Latch open or closed, depending on the setting during installation.
Cassette out transport failed. Open cover to remove film. Exposed film lost.	When Cassette was opened, the film was not removed and the closing mechanism does not reach the bottom dead center. ASSUMPTION: A film is caught in the lightlock of the Cassette. ⚠ **Warning** The Top Cover must engage both Cover Stays. Turn both Captive Screws 1/4 turn counterclockwise and open the Top Cover of the Multiloader to remove the film. **The exposed film is unusable.** To close the Top Cover, push the Top Cover slightly upwards to release both Cover Stays. Tighten both Captive Screws 1/4 turn clockwise.
Cassette out transport failed. Open cover to remove cassette.	Cassette got stuck when it should have been fed out. ⚠ **Warning** The Top Cover must engage both Cover Stays. Turn both Captive Screws 1/4 turn counterclockwise and open the Top Cover of the Multiloader to remove the Cassette. To close the Top Cover, push the Top Cover slightly upwards to release both Cover Stays. Tighten both Captive Screws 1/4 turn clockwise.
Please call for service	If this message appears, inform your Kodak Service Representative, as these problems can only be solved by a Kodak Service Representative.

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